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THOS. F. RUMBOLD, M. D.,
EDITOR AND PROPRIETOR.

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Complete Index to Advertisements, Colored Page XXIX

To the Medical Profession.

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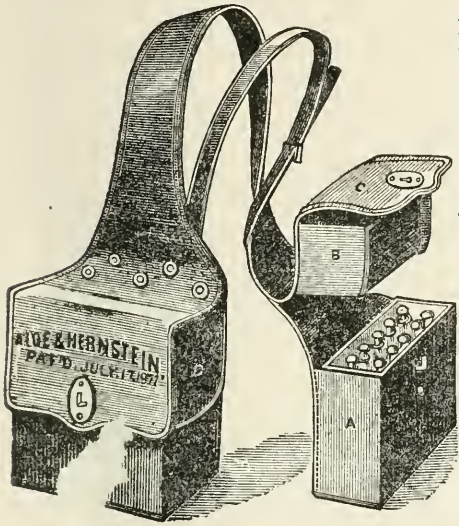

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M. F. Anderson, Licentiate of the Royal College of Physicians of Edinburgh, has shown that Phosphates isolated from animal tissues are of positive and unequivocable value in the treatment of Phthisis. See his "Phosphates in Nutrition." London. 1878.

Dr. Charles G. Polk, in his Treatise on "Tuberculosis; Causations, Lesions and Therapeutics," shows by a large amount of evidence that Animal Hypophosphites will arrest the disease in forty per cent of cases, while the officinal Hypophosphites will arrest it in less than twenty-three per cent; the Extract of Malt in four per cent, and cod liver oil in less than three per cent.

Dr. Louis Starr, of the Episcopal Hospital, Philadelphia, has found animal hypophosphites of great value in phthisis. (*New York Medical Record*, March 1st, 1879.)

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THE PRELIMINARY AUTUMNAL TERM for 1879-'80 will begin on Wednesday, September 17th, 1 79, and continue until the opening of the Regular Session. During this term, instruction, consisting of dida tic lectures upon special subjects and daily clinical lectures, will be given, as heretofore, by the entire faculty, in the same number and order as during the Regular Session. Students expecting to attend the Regular Session are recommended to attend the Preliminary Term, but such attendance is not required.

THE REGULAR SESSION will begin on Wednesday, October 1, 1879 and end about the 1st of March, 1880. During this Session in addition to four didactic lectures on every week-day except Saturday, two or three hours are daily allotted to clinical instruction.

THE SPRING SESSION consists chiefly of recitations from text books. This Session begins on the 1st of March and continues until the 1st of June. During this Session, daily recitations in al the departments are held by a corps of examiners appointed by the Faculty. Short courses of lectures are given on special subjects, and regular clinics are held in the Hospital and in the College building.

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TO THE MEDICAL PROFESSION.

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MALTINE is a highly concentrated extract of malted *Barley*, *Wheat* and *Oats*, containing, undiminished and unimpaired, all the medicinal and nutritious principles found in these cereals. By the most carefully conducted scientific process we are enabled to offer to the medical profession a perfect article, possessing from *three* to *five times* the therapeutic and nutritive merit of any foreign or domestic Extract of Malt.

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IRON

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Pepsin, Pancreatin, with Lacto-Phosphate of Lime & Lactic Acid.

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This pill will give immediate relief in many forms of Dyspepsia and Indigestion, and will prove of permanent benefit in all cases of enfeebled digestion produced from want of proper secretion of the Gastric Juice. By supplementing the action of the stomach, and rendering the food capable of assimilation, they enable the organ to recover its healthy tone, and thus permanent relief is afforded. One great advantage of the mode of preparation of these pills is the absence of sugar, which is present in all the ordinary Pepsin and Pancreatin compounds—in this form the dose is much smaller, more pleasant to take, and is less apt to offend the already weak and irritable stomach. The results of their use have been so abundantly satisfactory, that we are confident that further trial will secure for them the cordial Approval of the Medical Profession and the favor of the general public.

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DIRECTIONS.—Take one pill immediately after eating or when suffering from Indigestion, Lump in the Throat or Flatulence. For children reduce the pill to powder and give a fourth or half, according to age.

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Mensman's Peptonized Beef Tonic.

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It is not a mere stimulant, like the now fashionable extracts of beef, but contains blood-making, force-generating, and life-sustaining properties, pre-eminently calculated to support the system under the exhausting and wasting process of fevers and other acute diseases, and to rebuild and recruit the tissues and forces, whether lost in the destructive march of such affections, or induced by overwork, general debility, or the more tedious forms of chronic disease. It is friendly and helpful to the most delicate stomach, and where there is a fair remnant to build on, will reconstruct the most shattered and enfeebled constitution. It is entirely free from any drugs. Dispensed in 16 oz. bottes.

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"Is a complete representative of lean and fat beef, bone, blood, and muscle. It consists of all the properties which combine in the development of the animal body, which are liquefied by an artificial process, simulating natural digestion, and retaining all of their alimentary values. It contains in their perfection all the natural elements of the meat in their natural quantitative relations, without their extraneous or indigestible properties, and therefore requiring the least possible effort on the part of the stomach for its conversion into chyle, and its immediate absorption by the system.

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"We published the above article in the November Number of 1877, and will say that we have prescribed the tonic daily to date with the very best results.—Ed. Med. Eclectic."

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Iron, Phosphorous, and Calisaya.

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The secret of making good Cod Liver Oil lies in the proper application of the proper degree of heat; too much or too little will seriously injure the quality. Great attention to cleanliness is absolutely necessary to produce sweet Cod Liver Oil. The rancid Oil found in the market is the make of manufacturers who are careless about these matters.

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PHOSPHORUS and COD-LIVER OIL

have now an established position throughout the civilized world as important therapeutical agents. A *perfect combination* of the two has long been a desideratum, since they are both of value in the same disorders, while the cases in which one is demanded and the other contra-indicated are exceedingly rare.

The combination in PHOSPHOROLE has the twofold advantage of furnishing *the best possible form* for the administration of *phosphorus*, and *a more effective form* for the administration of *cod-liver oil*.

With regard to the former, it has been decided by the highest chemical and medical authorities that *phosphorus* should be administered *in a free state*, and in a vehicle which ensures its *perfect diffusion*, its *absolute unalterability*, and, as far as possible, its *prompt assimilation* without the gastric irritation to which the ordinary methods of exhibiting the agent give rise. It is well known that pills, emulsions, solutions in ether, chloroform, vegetable oils and resin, etc., have all failed to fulfill one or more of these conditions. Even an ordinary solution of phosphorus in cod-liver oil would not answer the purpose in all respects. We claim, however, that PHOSPHOROLE completely satisfies all the conditions. From the method of preparing it, in an atmosphere of dry carbonic acid, the phosphorus is *entirely dissolved without oxidation*, and by our mode of manipulation *a positive uniformity of strength* is ensured. It is then promptly bottled and sealed, and its *stability and permanence* thus secured. The exact amount of phosphorus in each dose is known, its efficiency is ensured, and the irritant effects upon the stomach are reduced to a minimum by the blandness of the oil. As a means then of administering *phosphorus* in the many cases in which it is indicated as a *nervous tonic and stimulant*, it is claimed that PHOSPHOROLE is the best attainable in the present state of our knowledge.

The value of *cod-liver oil* in phthisis is so familiar to the physician that it is needless to dwell upon it. But the value of *phosphorus* is also universally recognized in this disease, especially when complicated with nervous derangements. The *combination* of the two therefore furnishes a more effective form for the administration of cod-liver oil in the great majority of cases in which that remedy is indicated, and one which will at once commend itself to the profession.

A dose of two teaspoonfuls of PHOSPHOROLE contains $\frac{1}{100}$ of a grain of phosphorus. This dose, when given after a meal, is effective, and not very liable to interfere with digestion. *Phosphorus is cumulative in its action, and should be administered with watchful care.* About $\frac{1}{12}$ grain is considered the largest safe dose, and we rarely need go higher than $\frac{1}{20}$ or $\frac{1}{30}$ of a grain. At the very first appearance of the smallest gastric derangement, the exhibition of phosphorus should be stopped.

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THE

SAINT LOUIS

MEDICAL AND SURGICAL

Journal.

VOL. XXXVII——JULY, 1879——No. 1.

Original Contributions.

ARTICLE I.

REMARKS ON YELLOW FEVER. By REUBEN A. VANCE, M. D., of Cincinnati, Ohio.

Yellow fever is a tropical disease which commerce has brought to our doors. This fact is so well established that it is but a waste of time to argue upon it. Whether its germs have obtained such a foothold in the broad valley of the Mississippi as to require but favorable conditions of air and heat to develop the original disease, I shall not attempt to say, for others are far more competent to discuss this phase of the question than myself. The language I used in describing the conditions favoring the development of the affection when once its germs have been introduced seems to have struck the fancy of numerous students of this question, for I find it quoted by legislators and physicians as a satisfactory expression of the facts. In again embodying the ideas advanced at the Tri-State Medical Society, at Springfield, Ill., in November last, with the phraseology of my letter to Dr. Minor, the health officer of Cincinnati, I simply enunciate the

conclusions at which I have arrived as a result of careful study of the whole matter.

As already stated, it is only necessary to cite the well-known fact that yellow fever is indigenous in certain parts of the world—as Vera Cruz and Havana, the West India Islands, and different points on the coast of Central and South America. That it is *not* indigenous here—at least in the same sense that it is indigenous in the countries just mentioned—will be denied by but few. On the contrary, it is not only necessary to bring it here, but, so to speak, to care for it in its incipiency, and afford it the congenial soil of bad hygienic surroundings, in order to develop it into an epidemic form. But once imported and so situated as to increase, it propagates itself through certain definite avenues. The disease cannot be strictly transmitted from the sick to the well; it requires a series of intermediate agencies, and without these agencies, yellow fever cannot spread. These intermediate agencies, upon which the spread of yellow fever depends, are the excreta from patients with the disease. The cutaneous exhalations, the urine and the fæces, but preëminently those excretions and voided secretions which contain blood—the black vomit and bloody intestinal evacuations—communicate the disease, both directly and indirectly. Despite all care—and only those who have had personal experience can form an idea of the care ordinarily accorded yellow fever patients during the prevalence of an epidemic—there are but too many avenues through which the well are brought into direct contact with the excreta of the sick. Yet the important means of communication are direct. These organic excreta generate a miasm which arises from bedding and clothing, from vessels, privies and drains; in fact, from every spot where these excreta are deposited, and, when the disease reaches a certain degree of intensity, each new case becomes a center from which the epidemic spreads.

Isolated facts are dangerous arguments, yet a multitude of well-observed instances constitute the best of evidence. Let me briefly cite a few personal observations:

The second case of yellow fever in Gallipolis, O., last summer, occurred in the person of James T. Myers. This patient was a fine specimen of physical manhood, a steamboatman by occupation, and had just returned from the South, where he had spent several years. The John Porter arrived at Gallipolis August 18th, 1878, and her crew was discharged some time during

the following week. An agent of the proprietors of the boat came to the town during the last week in August and employed men to cleanse the boat and barges. Myers volunteered to go as one of the party, and went to the landing where the boat was made fast. According to the date given me by Myers when I was first called to his bedside, Wednesday, August 28th, he went to where the Porter was tied up on Saturday, August 24th, and started across the barges, intending to go aboard of the steamboat. In passing through the covered deck of the model barge Mingo, he slipped and fell, and in so doing soiled himself in some filthy mass on the floor. The stench arising from this stuff was so overpowering that he felt dizzy—not so much sick at the stomach, as he expressed it, but blind and dizzy, and, without a word of explanation to his employer, he retraced his steps, went on shore, and endeavored to wash himself with sand and water. His retreat was so sudden and inexplicable that those on the boats jeered at him, and thought sudden fear had caused him to leave. Finding himself no better for his washing—the intolerable stench still remaining in his nostrils—he walked back home. That day he was depressed, and not himself. The next morning he had no appetite for breakfast; on Monday he vomited freely; on Tuesday fever came on; on Wednesday I was called and diagnosticated yellow fever. Dr. Cromley, and subsequently Drs. Sanus and Needham, joined me in the case. Dr. Needham remained until the patient died, Monday, September 2d, 1878. On the Sunday evening before Myers died, while endeavoring, with Dr. Needham's assistance, to improve his position in bed, the poor fellow caught me by the collar and raised himself almost to his feet. In the struggle a paroxysm of vomiting came on, and I was deluged with a quantity of horribly offensive material, composed in great part of blood. Before I could escape from the patient's house to my own residence—where, fortunately, ample precautions had been made for any such emergency—I could not help inhaling the emanations from the materials with which I was drenched. For several days I suffered from a severe headache, with loathing of food and occasional attacks of nausea; no fever resulted, however, and in a few days I was as well as ever.

In conversing with a resident of the infected district below Gallipolis, where the mortality was so great, he told me of the following circumstance: At one of the houses where two deaths

occurred, a finely worked white spread was taken to cover the last patient. Free hemorrhage from the gums and nose was a conspicuous symptom in both cases, especially the last one, and it chanced that this spread was stained with blood, but not soiled in any other way. When the bedding was destroyed, this spread was laid aside, removed to an adjacent house, and a woman of the neighborhood employed to wash it, some excuse being made for its condition. This woman, utterly without knowledge of the antecedents of the article she was engaged to cleanse, took a tea-kettle full of hot water and started to pour its contents over the spread which had been thrown into a tub, but had neither been soaked in hot water nor disinfected. When the fumes arose and enveloped her, she suddenly stopped and sat down. Shortly after she made the remark that she was sick at her stomach; that her breakfast had disagreed with her. Within a week afterwards this woman took the fever and died, and her name figures in the death-roll of those who had been on the Porter.

Let me quote a paragraph from my letter to Dr. Minor, the health officer of Cincinnati:

"One more word and I am done. You say in your letter that the last trip of the Porter was very fatal to her crew. Now, I know of but two deaths,—Hill and Long—and I also know that both these men were exposed to the poison of the Mingo. The same is true of two others of the crew who were sick about Oct. 3d, and were said to have yellow fever. In reference to my own case, (if I suffered from poison imbibed from the Porter and her barges, and of that I think there is little doubt,) you know how much I was exposed on the Mingo. So here are five cases, with two deaths, on which the influence of the Mingo was clear. In regard to Mr. Cooper, I don't know how much he was exposed; he can answer for himself. On the other hand, there were twenty of the crew of the Porter who were on the boat for more than a week, and who were not exposed to the poison of the Mingo, and who, as I also know, have remained well. You will observe that I omit Field from my calculation. Rumor says that he has had the fever, but I have no means of learning the truth of the matter. One thing, however, is very apparent, and that is this: Had not the Mingo been destroyed as she was, the second upward trip of the Porter and her barges would have been attended by such a spread of yellow fever along the banks of the Ohio river, as to dwarf into insignificance the destruction of life and

property which marked her desolating march from New Orleans to Gallipolis."

The following facts will explain the foregoing allusions: The steamer John Porter, a tow-boat, with a fleet of barges, had a case of yellow fever occur among the crew soon after starting from New Orleans for Pittsburg. The details of the trip of this ill-fated boat from New Orleans to Gallipolis, Ohio, are well known; the second trip of this boat from Gallipolis to Cincinnati, and her subsequent progress up the river, are less known. The steamer, surrounded by barges, was moored on the Virginia side of the river, a mile below Gallipolis, where they were secured by an agent of the proprietors some time during the last week in August, 1878. It should be borne in mind that the Porter was a new boat, and so far as elegance of appointments was concerned, was more like a first-class passenger craft than a tow-boat. When the fever occurred on her upward trip, the sick were removed to the model barge Mingo, and there cared for. In September, Mr. John Porter, one of the proprietors of the boats, came to Gallipolis, and arranged with me to disinfect his boats. Before I got ready to do so, heavy rains fell, and while I was on board of the Porter disinfecting her, the flood broke the ropes and carried off both boat and barges. The Porter was soon made fast to the bank, the barges were carried on down the river. At this time I had examined but two of the barges, and the Porter. It being impossible to procure another boat, and I having found the steamer Porter in good condition, I advised captain Porter to raise steam on the latter, and start after the missing barges—that it was his duty to leave no step untaken necessary to gather up the infected barges. He did so; at Ripley, Ohio, we found the barge Mingo, (I having accompanied the party at Captain Porter's earnest solicitation,) and I inspected one of her two compartments. The stench arising from this barge was something indescribable. I advised Captain Porter to put a guard over this barge to keep people off; my advice was followed, and the search was renewed, the Porter resuming her journey down the river. That night the barge Mingo was found floating by the Porter, it having been cut loose by the people living near where it was made fast. The next day Dr. Minor, of Cincinnati, came aboard, and in inquiring about the Mingo, gave me such information as led me to suspect the presence of dead bodies in the hold of the latter. The missing barges having now all been accounted for,

the question of the disposition of the Mingo had to be answered. When the case of Myers is recalled, and the fact that the Mingo had been used as a receptacle for the sick and dead is considered, I think few will deny that the disposition made of her was the best under the circumstances. At the urgent request of Dr. Minor and myself, Captain Porter set fire to and destroyed the Mingo. That this act was a fortunate thing for the people of the Ohio Valley, let the facts cited in the above quoted paragraph from my letter to Minor, speak for themselves. Of thirty odd men on the Porter on her second trip, seven were exposed to the poison of the Mingo; of this number, six certainly, and the remaining one probably, had yellow fever, and two died. Of the remainder, all of whom were on the John Porter for more than a week, but none of whom were exposed to the Mingo, not one had yellow fever.

The fact that hemorrhagic stains, when subjected to the use of hot water, may yield a venomous miasm, has been noted more than once. The case I have detailed is a contribution to the literature of the subject.

I cite the fact, that although excreta may generally act as they did in the case of the young man Myers, yet such action is not invariable. An illustration is found in the circumstance noted in concluding an account of his case.

How is the miasm to be destroyed which arises from the excreta ejected over clothing and in vessels, privies and sinks? How are we to prevent the development of new cases from the poisonous emanations of old ones? My experience leads me to believe that a satisfactory answer can be found in thorough disinfection.

As to quarantine, when the strong arm of the general government seizes a city or village in which yellow fever prevails, and remorselessly isolates that community until all danger is past, then quarantine will save human life, but so long as quarantine regulations are to a certain extent voluntary, they will be enforced just so long as the predominant mercantile interests fear death more than they love money,—a period of time which never lasts longer than the first few weeks of a yellow fever panic.

Article II.

Vicarious Menstruation. By Walter Coles, M. D., of St. Louis, Mo. [Read before the St. Louis Obstetrical Society, June 19th, 1879.]

Although somewhat rare, the subject of what is commonly known as *vicarious menstruation*, is of sufficient interest and importance to warrant much more attention than it has received at the hands of most writers on the diseases of women. Normal menstruation, especially since its connection with ovulation was first distinctly promulgated, a little over a half century since, has given rise to much speculation among physiologists, and we are familiar with the various doctrines which have been held in relation thereto; though it must be confessed that, in many respects, we are as yet groping in the dark, with but little more than theories to guide us in our study of this most intricate and interesting subject.

In our systematic treatises on gynæcology, menstruation and its disorders have always occupied a prominent place; yet, strange to say, the possibility of its vicarious occurrence is, by some, not so much as hinted at, whilst others content themselves with the bare statement that such a phenomenon is occasionally encountered. Others again allude to the subject only to express doubts as to any such physiological abnormality.

That the mensual discharge of blood peculiar to the human female, from the age of puberty to the end of the child-bearing period, may take place from other sources than the interior of the uterus, is a fact which is now sufficiently well attested. Instances of the kind have doubtless fallen to the experience of us all, and have been vouched for by many of the most careful and reliable medical observers.

The term vicarious menstruation is, however, in the sense in which it is generally employed, not strictly correct, though it is certainly more expressive than "*supplementary*" menstruation, as used by Scanzoni, since this does not convey the meaning intended. Barnes employs the apter term "*ectopic*" menstrua-

tion, but even this does not cover all cases embraced under this head, for a distinction should be drawn between ectopic hemorrhage and leucorrhœa, for example, which coming directly from the uterus, merely takes the place of the menses. These are all more properly cases of *perverted* menstruation; the normal discharge being either changed in character, or else flowing off through unnatural or perverted channels.

It has been contended by many that these perverted menstrual bleedings always take place either from some free or mucous surface connected with one of the normal outlets of the body. Trousseau is emphatic in his enunciation of this as a physiological principle. Others again, recognize its possibility in any locality or tissue of the body containing blood vessels, and in this way account for some cases of hæmatocele and apoplexy. Experience, however, teaches that serous membranes enjoy a remarkable immunity from such hemorrhages, which seem at the same time more prone to discharge themselves from certain localities than from others. For example, the vascularity and fragility of the Schneiderian membrane favors the nostrils as a source of effusion. We all know that in young girls approaching puberty, and before the uterus is fully prepared to take on its mature function, bleeding at the nose is not uncommon. According to Churchill, "the more extensive mucous membranes (pulmonary and intestinal) are, however, the ordinary seats of discharge," although instances are recorded in which the effusion has taken place from almost every conceivable portion of the body, though the discharge often selects some weak point, as for instance, a hemorrhoidal tumor, an ulcer, a wart, or a diseased gum, etc. Instances are not wanting, however, in which the hemorrhage has occurred from the skin in general, the nipples, ears, eyes, umbilicus, tongue, tonsils, air passages, stomach, rectum, bladder, edges of toe and finger nails, etc. Among the most frequent, and, indeed, not uncommon, vicarious discharges other than blood, is a profuse diarrhœa, or leucorrhœa, at or about the time of the menstrual nisus.

It has been observed that the quantity of blood lost is generally less, rather than in excess of the normal menstrual flow. The locality of its exit perhaps has something to do with the quantity and method of discharge. Occasionally it comes in one free gush, and all is over, but much more frequently in slight continuous hemorrhage or oozing, lasting about the usual time of

menstruation. But few cases are recorded where the hemorrhage has been sufficiently profuse to imperil life, and in the extremely rare instances where death has occurred, it is probable that some other element than the menstrual nisus influenced the result—a fact which the prudent practitioner should never lose sight of. A remarkable case of this kind is reported by Dunlap, in the *Edinburgh Journal* for April, 1850. A young lady, who is reputed to have had vicarious menstruation from the mouth and gums, discharged at each period the enormous quantity of six quarts of blood; finally, having been much prostrated, she was cupped for pain in the side, when death ensued from uncontrollable bleeding from the scarifications. There was doubtless a strong development of a general hemorrhagic diathesis in this case.

Vicarious menstruation may be entirely vicarious, *i. e.*, it may entirely supplant normal menstruation, or it may be partial. It may occur in cases where there is complete amenorrhœa, or where the normal discharge is simply scant. Again, it may alternate with normal menstruation. Whilst it generally continues only during a limited period, it may persist indefinitely, or it may commence vicariously at puberty, and so continue up to the change of life. Under whatever circumstances, this strange affection is worthy of grave consideration, since it always indicates a profound disturbance of health. We will proceed to relate one or two cases which have fallen under our observation, since they are not without interest and instruction. The first case led to a mistaken diagnosis, and to the entailment of much inconvenience and expense upon the lady interested.

Miss M., æt. 27, of spare and delicate physique, with fair complexion, dark hair and blue eyes, by profession a teacher. At the time that I saw the patient, she had just retired from the chief control of quite a large female seminary. She had experienced several slight hemorrhages from the lungs, and these spittings of blood recurring from time to time, alarmed her and her friends, so much so, that she was advised to take a brief vacation, which she accordingly did, and availed herself of this opportunity to go on to Brooklyn for the purpose of consulting a physician in whom she had great confidence. He heard the history of the hemorrhages, examined her chest, and advised the lady to abandon her school, and to adopt prompt measures for warding off phthisis pulmonalis, the incipient symptoms of which were supposed to be already apparent. The patient returned at once

to her former home for the purpose of disposing of her interests in the seminary under her charge, and remained for several months closing up her affairs. It was during this time that I first saw her, and had an opportunity of observing the case. I paid my first visit about two weeks after a hemorrhage, and found the patient in apparently as good health as usual. Although, as I have said, she was naturally spare, her complexion was clear and healthy; the pulse was normal, no cough of consequence except at the time of hemorrhage, and shortly after; no persistent expectoration. Upon careful auscultation and percussion, no lesion of any of the thoracic organs was discovered, although I was informed that her Brooklyn physician had pronounced the lungs "weak." I learned that menstruation for a year previous had been rather painful, and either very scant or entirely suppressed. The idea of any connection between the menstrual molimen and the pulmonary hemorrhage had not occurred to her, nor was it suggested by me at first, though I suspected it, for the reason that she remarked of her own accord, that it was a strange fact that her hemorrhages came on about a month apart.

I contented myself by prescribing a tonic, advised free exercise in the open air, and promised to call again, requesting at the same time to be notified should hemorrhage recur. On the thirtieth day from the preceding attack, I was summoned to find the patient expectorating occasionally a mouthful of red frothy blood. The cough was not severe, and auscultation revealed a few moist râles pretty well distributed over the upper portion of both lungs. On the third and fourth days, there was slight subcrepitation over nearly the whole of the lungs, more marked towards the apices. The bleeding, which gradually subsided by the fifth day, was accompanied with but little systemic excitement. The quantity of blood lost was not more than is discharged at an ordinary menstruation, which in this case did not occur. In the course of a week, all trace of lung disturbance had subsided, and the patient was apparently none the worse for what had happened.

With the lights before me, I felt sure of my diagnosis, and assured my patient that there was no serious disease existing in her lungs, nor was there any good reason why she should permanently abandon her profession. Unfortunately, she had disposed of her late interests, and was compelled to build up her fortunes in some other field. This lady, after having one or two

recurrences of hemorrhage, passed from under my care. I learned, however, that she recovered her normal menstrual function with the restoration of general health, whereupon all pulmonary manifestations ceased. There was in this case, so far as I could learn, nothing done beyond a general tonic and hygienic treatment, with the exception of warm sitz baths at the menstrual epoch.

Vicarious Menstruation simulating Pneumonia:—Miss D., æt. 19, small and delicate, commenced to menstruate at 16; flow generally scant and accompanied with pain. On the occasion that I saw her, she had suffered from several exacerbations of malarial fever. The menses appeared slightly on Sunday, and on that evening she was caught in a shower of rain, which seemed to bring on suppression. On Monday following, after slight chilliness, there was fever and slight cough, accompanied with expectoration of the peculiar tenaceous rusty colored sputa so characteristic of pneumonia. Indeed, seeing the patient with fever and cough, and observing the nature of the sputa, one would almost irresistibly conclude that there was pneumonia; yet there existed no pain in the side, no difficulty of respiration, neither was the cough of that constant and suppressed character usual in the early acute stages of this disease. The thermometer showed a temperature of 102½°. Most careful physical examination failed to detect any traces of pulmonary inflammation. This was at 3 p. m. A capsule of Dover's powder and quinine was administered, and at 8 p. m. I returned to find the patient nearly free from fever and of all particularly disagreeable sensations. Next morning the temperature was 99°, at which point it remained until Thursday, when it indicated a normal condition, quinine having been in the meantime given for the malarial fever. I should remark that the peculiar pneumonic-looking expectoration continued up to Wednesday night, when it disappeared almost as suddenly as it commenced, the lungs in the meantime evincing no sign of disease, and on the next day the patient was going about as usual. This case, although extremely puzzling at first, owing to the incidental presence of fever having no connection with the sanguinolent sputa, was an indubitable case of perverted menstruation.

We might mention several other instances of this kind which we have met with in practice, especially of those not uncom-

mon forms of vicarious discharge in which the menstrual nisus passes off in an apparently sudden and unprovoked diarrhœa, leucorrhœa, or an attack of bleeding piles; but the interest attaching to such cases is not so great, for anatomical reasons, as where some distant organ assumes a function essentially foreign to itself. This latter category of cases may indeed be said to constitute a distinct class for the study of the physiologist and pathologist, and opens up several intricate and interesting questions which have not as yet approached a satisfactory solution.

It will be observed that in neither of the cases which have been detailed was there anything like a plethoric condition of the system; on the contrary, both patients were naturally delicate, possessing no superfluity of blood. It would prove exceedingly interesting and instructive if authors who have reported such cases had been more explicit in their observations as regards the physical character of the subjects of these perverted hemorrhages. Our own experience has led us to conclude that this phenomenon is most commonly met with in frail, delicate women. When an opposite condition of system exists, we have more frequently encountered vicarious discharges proper, such as leucorrhœa, diarrhœa, etc. Dr. Playfair seems to have had a somewhat similar experience. He says: "This strange deviation of the menstrual discharge may be taken as a sign of general ill health, and it is usually met with in delicate young women of highly mobile, nervous constitution." On the other hand, cases cited by Bedford would indicate that his patients thus affected, were exceedingly plethoric, and that the hemorrhagic discharges were merely efforts of nature to rid the system of a redundancy of blood. Indeed the explanation of this peculiar manifestation, by most writers, is based upon a similar hypothesis.

As has already been remarked, the process of menstruation has, from the earliest times, been surrounded by a certain amount of mystery and uncertainty; hence the difficulty of discussing intelligently the pathological-physiology of the subject before us. We are here reminded of the remark of an eminent author when he asks "why, when the whole book is unintelligible to us, should we expect to comprehend one chapter?" Nevertheless, there is something in the very incomprehensibleness of vicarious menstruation which challenges our attention and affords an interesting theme for reflection. Men are frequently taught more wisdom in defeat than in victory; so it seems to us that a

study of this abnormality is not wanting in negative light, calculated at least to shake our confidence in some of the doctrines taught, not only in regard to the mechanism of perverted, but likewise in respect to the physiology, of true menstruation.

So far as local influences are concerned, Emmet and others have presented plausible reasons for the non-appearance of natural menstruation, based upon the well-known fact that at each monthly molimen the lining membrane of the uterus undergoes certain changes preparatory to the bloody discharge. In consequence of local morbid conditions, however, these changes become faulty and imperfect, rendering menstruation difficult or impossible of accomplishment. In this way Emmet accounts for certain cases of amenorrhœa, or, it may be, he says, that "the excess of blood is thrown back upon some other organ or portion of the body for an outlet, and its escape at the menstrual period by an unnatural channel is termed vicarious menstruation." This is but another mode of expressing substantially the old doctrine of "*plethora*," and of accounting for the hemorrhage, whether from the uterus or elsewhere, as a necessary relief to an overloaded vascular system. But the "*safety-valve*" doctrine of menstruation, as commonly expounded, and so universally accepted in explanation of its vicarious discharge, whilst in many respects plausible, is nevertheless open to many objections. Nature's laws are too uniform and too perfect to admit of as many exceptions as can be adduced against such an hypothesis as this.

That menstruation, whether vicarious or otherwise, does affect a salutary depletion, without which the system may suffer both generally and locally, is not denied. But that its prime object is to relieve the female economy of a certain amount of blood, the retention of which would overdistend and oppress the vascular system beyond its mechanical endurance, certainly cannot be accepted as a physiological law. Such a theory, which *looks no deeper than the circulation*—to its repletion on the one hand, and to its depletion on the other—is both superficial and crude, and cannot stand certain pathological tests to which it can be subjected. Take, for instance, a woman who, after a prolonged labor, is delivered of a dead child; she convalesces satisfactorily, but the menstrual function never returns, as we have known to be the case, on account of extreme atrophy of the uterus. The ovaries, however, remain intact, and ovulation goes on regularly, as is manifest at each monthly molimen. Although such a woman

has no *waste-gate*, no *safety-valve*, through which her blood-pressure is relieved, we generally look in vain for the advent of dangerous plethora. On the contrary, the blood-pressure grows *less* as time rolls on, and in a majority of instances the patient becomes anæmic, becomes chlorotic, the nervous system bearing the brunt of the burthen. We mention such a case because here there had already been engrafted a "*habit*" of menstruating (another term common in the literature of this subject), and hence it is perhaps a stronger illustration than that of young girls with ovaries, but without uteri, who never having menstruated, still maintain fair health for a good portion of active ovarian life, and if they finally grow ill, it is not usually from an overloaded vascular system, but in the direction of chlorosis. Notwithstanding what has been termed nature's "waste-gate" is closed in these cases, we but seldom find such persons subject to vicarious discharges, which would uniformly occur if mere depletion were as imperative as has been contended.

But there is another class of cases which affords conclusive evidence that mere blood-pressure is not an essential element of menstruation. We allude to the fact that this discharge is not ordinarily suspended by large losses of blood, accidentally occurring at the time of the monthly nisus. Instances of this character are too numerously recorded to need citation. Finally, how and why is it, that vicarious menstruation not uncommonly occurs in feeble, delicate women? This is a question which the present state of science does not permit us to answer with confidence, yet pathology offers certain clues that are perhaps valuably suggestive. For whilst we know that a woman bled to the verge of syncope immediately preceding a period, may still go on and menstruate as though nothing had occurred, we also recognize the fact that a sudden emotion is capable of stopping the flow instantly. A sudden chilling of the feet is a familiar cause of suppression. The menses which are regular, and in all respects normal up to marriage, may cease to appear for a few months thereafter, without the intervention of pregnancy, but solely through the influence of the new life upon which the female has entered. Now how are we to account for these things? These and many other phenomena connected with menstruation, seem indeed confusing and perplexing, and any attempt at solution must needs be unsatisfactory in the present condition of our knowledge, although they clearly justify us in assuming that the

nervous system plays a far more important role in this department of the female economy, than has generally been attributed to it.

That there is an intimate relationship between menstruation and ovulation, has been sufficiently demonstrated. Ovulation may occur without menstruation, but the reverse is so exceedingly rare, as to be accounted a physiological curiosity. This phenomenal occurrence has been ascribed to *habit*, but we suspect that the real solution rests upon a very different physiological principle, which is susceptible of explanation, a principle not yet developed, but to which allusion has already been made, and which we believe constitutes the basis of the functions under discussion. We allude to the nervous influence over the ovarian and uterine functions.

So far as we remember, no instance is recorded where menstruation has occured after removal of both ovaries during childhood, or before the period of maturity; nor do we know of a case where menstruation has continued permanently after extirpation of the ovaries. These facts are susceptible of but one interpretation, and that is, that the ovaries and uterus are supplied with filaments from certain specific nerve centers which preside over those fundamental nutritive changes essential to ovulation and menstruation. These centers are not developed—not fully capable of discharging their functions until the age of puberty, and when the ovaries are removed anterior to this period, these nerves cease to grow, as is the case with certain branches distributed to the testes of animals castrated when young. But it is easy to conceive that in a few instances of ovariotomy in the adult, there may remain for a time, sufficient vitality or irritability in the severed ends of such filaments, as to maintain temporarily a specific synergetic influence upon the uterus, producing menstruation. In time, these nerves undergo partial atrophy, returning as it were, to the childhood state, and cease to influence the uterus subjectively, just as the nerves in the stump of an amputated limb gradually cease to annoy its possessor with false sensations, so soon as all irritation is removed from their divided extremities.

We have thus digressed somewhat, but chiefly for the purpose of illustrating and paving the way in advance for certain propositions, which we propose briefly to elaborate in regard to the

nature of menstruation, and of some of its abnormalities. We beg leave to formulate these propositions as follows:

1st. Both the ovaries and uterus are in intimate connection with certain nerve ganglia, which preside over the nutritive changes incident to ovulation and menstruation.

2d. It is reasonable to infer that some of the aberrations of ovulation and menstruation are dependent upon disordered nerve function *solely*.

The researches of Lee and others, have fully demonstrated that the uterus and ovaries are far more abundantly supplied with nerves, than was formerly supposed. Moreover, that these nerves undergo marked development at the age of puberty, and still more marked changes during pregnancy. As Dr. Tyler Smith remarks in his profound work *On Parturition*, "The plainest facts of physiology, as well as the analogies and facts of anatomy, demand more extensive endowments for the uterus as the principal organ of generation in the female. * * * There *must* be nerves, and there must be nerves *sufficient* for the functions to be performed." If this assumption was true thirty years ago, how much more emphatically are we justified in reiterating it to-day, when we bear in mind the immense strides that have been made in nervous physiology since Lee dissected and Smith wrote! Now that we are beginning to gain an insight into the wonderful sympathies and energies stored up in the ganglionic system, by which nearly every step in circulation, secretion and nutrition is regulated and perfected, is a proper time to turn our attention in the direction of a field hitherto almost neglected, but which promises a rich harvest for the physiologist.

Although for reasons susceptible of explanation, ovulation and menstruation do not invariably go hand in hand, yet the same physiological law and the same moving force which governs the maturation of the Graafian vesicle, also works those changes in the uterus culminating in menstruation. Pathology would indicate that it is not the mere excitement in the ovary, coincident with the rupture of the follicle, which induces menstruation as a sort of second link in the chain of events, (which is commonly taught) but they are both practically cotemporaneous results of a common cause, that cause being a specific endowment of certain nerve centers. We admit that such centers are at present purely hypothetical, but every analogy and every principle of physiology, so far, leads to a strong presumption of their exist-

ence; of the existence of store-houses of generative force, so to speak, which in accordance with a law peculiar to different animals, discharges itself at certain periods. When the innervation of the generative organs shall have been studied with something of the same method and minuteness which has characterized that of the heart in recent years, we predict a new era in the physiology of this subject.

It is difficult to think of menstruation as being simply a hemorrhage in the ordinary sense of that term. The influence upon its flow of emotional and other nervous perturbations has already been alluded to. But there are other physiological considerations that should be borne in mind in this connection; we should remember that under certain circumstances, according to Cohnheim, it is possible for blood to escape from its containing vessels without an actual rupture of their walls. Virchow also states that on microscopic examination he has observed small solutions of continuity in capillaries, minute arteries and veins, through which single blood globules have escaped one by one, whilst the current has gone on uninterruptedly. When, however, the gap has become larger, the circulation may be stopped in the vessel and the current sets in from all sides towards the orifice. After the escape of a certain amount of blood, the leak is repaired and the circulation continues as before. Handfield Jones, although not speaking from actual observation, believes that some such change in the blood vessels occurs in normal menstruation, and is co-existent with the lowering of nervous power. Coste, who has closely studied this subject, believed that the blood transudes through the coats of the capillaries without any laceration of their structure. Farre contends that the uterine capillaries terminate in open mouths, through which blood is prevented from flowing during the intermenstrual period by muscular contraction. While most other observers hold that the discharge is due to a shedding or breaking up of the deciduous lining of the uterus. In view of all these facts, are we not justified in assuming there is truth on both sides, and in concluding that menstruation is the result partly of a "*liberating*" nerve force, and also partly incidental to nutritive metamorphoses taking place in the uterine mucosa?

Assuming, as we do, that this is the source and nature of menstruation, it follows that in order to insure its natural production, there must exist a degree of healthfulness in the innervation

and nutrition of the ovaries and uterus. And, as a matter of fact, we know that any marked deficiency in either one of these factors *does* produce aberration of function. We can thus understand how amenorrhœa may, among other causes, result from a *neurasthenia* or prostration of those nerve forces which are wont to discharge themselves monthly through the organs of generation. We are satisfied that such cases are met with in practice; they are for the time being sapped of that mysterious fundamental power which quickens and ripens the Graafian vesicle. In such women the ovules may not mature, and they are to all intents and purposes as impotent as though they possessed no ovaries. Their generative force is sometimes so completely in abeyance as to create no monthly disturbance indicative of a distinct menstrual nisus, they complain only of general indisposition, or possibly of symptoms of a most misleading character, located it may be in distant organs.

Very different is the state of things, however, when the nervous energies of the uterine system are still effective, but merely diverted, or reflected into other and unusual channels. In this case the monthly explosive force expends itself in other directions and in divers methods, one of which may be the so-called vicarious or ectopic menstruation.

As already stated and illustrated by the cases detailed, this perversion of menstrual function *cannot be justly ascribed to the mechanical influence of blood-pressure simply*, but is rather the expression of an aberrant distribution of nerve force. The varied and complex connections, direct and indirect, of the nerve plexuses supplying the uterus and ovaries, readily explain the far-reaching sympathies of these organs. Yet it is probable that we may never clearly discover the proximate causes determining the seat of vicarious discharges in one particular spot rather than another. But that such hemorrhages *do not break forth at random*, we have abundant demonstration in cases where the eruption has occurred in localities rendering it possible to watch the process throughout. In such instances it has frequently been observed that the parts involved undergo rapid nutritive changes *preparatory to the flow of blood*. For example, several authors have reported cases in which the large papillæ on the dorsum of the tongue have suddenly became enlarged and prominent, culminating in a sanguineous discharge. Blundell mentions a case, occurring under his own eyes in St. Thomas' Hosp., in which the hem-

orrhage took place every three weeks (the period to which the patient was accustomed) from a sore on the back of the hand, and he adds the significant comment that "in this case it is worthy of remark that there was, some two or three hours before the commencement of the eruption, a throb in the course of the radial and ulnar arteries." So marked is this preparatory process in some instances, that Dr. Tyler Smith has actually referred to it as illustrating similar changes occurring in the mucosa of the uterus previous to and during normal menstruation. He says: "In these cases an ulcer upon any part of the surface of the body may skin over, or assume healthy granulations during the intervals of menstruation, but on the occurrence of the period, the newly-formed skin gives way, or the healthy granulations slough, and blood exudes from the surface for several days, after which the ulcer heals, or puts on a healthy aspect, until the approach of the next catamenial period." How far occult, but all sufficient changes of nutrition may occur, calculated to induce hemorrhage from internal tissues, we of course have no means of determining, but because hidden from the eye, we are not justified in denying their possibility.

But here again pathological analogies present themselves, tending to lend additional support to the views we have advanced. For we have already seen that the menstrual molimen may pass off in other ways than through a discharge of blood, as for instance, in the form of diarrhœa, salivation, or in the shape of a cutaneous eruption, such as eczema, prurigo, acne, erythema, etc., many instances of which are recorded. Indeed, the association of acne with menstrual irregularities, especially in young girls, is exceedingly common. Not only does the accumulated nerve-force of the female generative system, when deflected from its natural channels, expend itself in the manner indicated, but there is every reason to believe that it not uncommonly discharges itself in periodical nervous explosions *solely*, as in epilepsy, catalepsy, and more frequently hysteria. If time permitted we might cite several cases illustrative of this fact. All these affections may at times be properly regarded in the light of vicarious menstruation, or, in other words, as a perverted method of relieving over-charged nerve-ganglia. We can perhaps all readily recall instances of violent hysterical paroxysms occurring in amenorrhœal subjects at the time of the menstrual epoch. There is additionally in these cases, one or the other, or

all of the usual concomitants, vomiting, lachrymation and diuresis. After one of these attacks the patient is left calm and comfortable until the next *period* ushers in another similar paroxysm. Other curious forms of what seems in some instances tantamount to vicarious menstruation might be referred to, but we will content ourselves with only reciting one reported by Villartay, and mentioned by Churchill. It is that of a young girl who suffered from amenorrhœa for a year. Each month she slept for three or four days at the proper period for menstruation; she had no affection of the head, the sleep was apparently rational, and after the catamenia returned it entirely ceased.

If there is anything in the line of thought which we have endeavored to present this evening, it leaves us one of two alternatives in our remarks on the subject of *treatment*: they must either be very prolix or exceedingly brief. Having already trespassed sufficiently upon the patience of the Society, we have concluded to adopt the latter course. Our object has been rather to suggest, in a general way, the importance of studying the pathological and physiological peculiarities of all such cases, individually and separately, without reference to either dogma or routine. If it be true that the nervous system constitutes as important element in the pathology of this class of disorders, as we have so imperfectly endeavored to show, then the therapeutic deductions are easily drawn, and we perhaps have a key to the great uncertainty of that class of drugs known as emmenagogues. We believe that the day is not far distant when clearer principles of pathology founded on a more enlightened physiological knowledge, will naturally open the door to sounder and more rational methods of treatment.

Translations from the French.

NEW MODES OF SURGICAL TREATMENT. ("Histoire de la Chirurgie Française" par le Docteur JULES ROCHARD. Edit. 1875, pp. 639, *et seq.*) Translated for THE JOURNAL by B. A. WATSON, M. D., Surgeon to Jersey City Charity and St. Francis' Hospitals, Jersey City, New Jersey.

PERMANGANATE OF POTASH.—This agent acts in an entirely different manner; it is not a parasiticide, it is an agent of combustion; it does not neutralize the germs of putrefaction, it destroys them by the energy of its oxidizing power. The properties had been known in chemistry a long time, when in 1859 Condy proposed it as a disinfectant in wounds, and it has already been employed a long time for this purpose in England and America under the name of *Condy's fluid*.[1] Demarquay, who had been a witness of its good effects, determined to have recourse to it in the municipal hospital in analogous cases in the proportion of from four to six drachms to three ounces of water. This solution employed as a wash or an application on pieces of charpie, had constantly the effect to make instantaneously disappear the odor of the worst infected wounds as well as to disperse the offensive odor of ozena and that produced by the profuse perspiration of the feet. Demarquay communicated these results to the Academy of Sciences, April 27th, 1863. The 23d of June following, Blache, read to the Academy of Medicine, a very detailed report on the same subject, on the occasion of a memoir offered by Castex, surgeon-in-chief of the army,[2] and his conclusions were the same as those of Demarquay. The German journals reproduced, at the same time, facts of the same nature, and the permanganate of potash, which commended itself by its perfect solubility, its beautiful color, the complete absence of all odor, and the readiness of its application, took definite rank in surgical therapeutics. We are far from having passed in re-

1. Condy, Proprieties désinfectantes des permanganates alcalins, Paris 1867.
2. Blache, *Bulletin de l'Académie de Médecine*, t. xxviii, p 821.

view all the disinfectants which were proposed at the time of the antiseptic furore, and we do not intend to mention all. We will limit ourselves to citing, first, the extract of logwood, praised in 1862 by P. T. Desmartis of Bordeaux;[3] second, alcohol with guaica, described by Pascal in 1863, in a note to the Academy of Sciences;[4] third, bromine, which possessed a great reputation in America during the war of secession, as an antidote for hospital gangrene; fourth, turpentine, with which Dr. Werner obtained the best effects in connection with bicarbonate of soda among the numerous workmen in the factory of Dollfus A. Mulhouse;[5] fifth, sea water has been recommended by a Belgian physician, Victor Dewandre, as an excellent disinfecting agent and even as a preventive of purulent infection, in a pamphlet which was awarded a prize by the Medico-Chirurgical Society, of Liege;[6] sixth, petroleum oil, which made its appearance on the therapeutical scene in 1870 under the auspices of Fayrer;[7] seventh, the tincture and the aqueous extract of eucalyptus, the remarkable properties of which were recognized by the indefatigable experimenter of the municipal hospital in 1872;[8] eighth, finally chloralum, the last born, the most complete of the disinfectants which appear at this moment the fashion in England and for the manufacture and sale of which there has already been formed a *chloralum company.*

VILLATTE'S LIQUID.—We will not be able to omit mentioning Villatte's liquid, although it does not belong to the class of disinfectants, but it resembles them in its properties. It has recently fixed the attention of surgeons, and we think for this reason we ought to accord to it a brief mention. This strange composition, of which all the elements react one on another, and which recalls the empiric formula of the old pharmacopœas, was invented

3. *Répertoire de Pharmacie*, No. 12, t. xviii.

4. Séance du 12 Octobre, 1863.

5. *Bulletin de thérapeutique*, 1865, t. lxviii, p. 219.

6. Dewandre, du chlorure desodium dans le traitement des plaies en général. Liege, 1865, extract in *Union Medicale*, 1865, 2d serie, t. xxvii, p. 62.

7. *Gazette Hebdomadaire*, 1870, p. 147.

8. Benjamin Anger, *Pansement des plaies Chirirurgicals*, thèse citee, p. 134.

9. D'apes l'analyse de Fleck (de Dresde), le chloralum est une solution aqueuse de chlorures d'aluminium de plomb de cuivre de fer et de calcium (*Abeilee Médicale* du 29 Octobre 1873, No. 42, p. 406.

in 1829 by a veterinary surgeon whose name it bears.[10] Until 1863 it had been employed only on animals; at this time, Dr. Notta, of Lisieux, influenced by fine results obtained by the use of this complex liquid in diseases of the bones and tendons in animals, determined to have recourse to it in the treatment of the diseases of men. His first trials were sufficiently encouraging, and he believed it to be his duty to publish them, and two years afterwards he made known the results of further investigations.[11] Under the patronage of this distinguished surgeon, the employment of Villatte's liquid was not slow to spread; it was experimented with in the service of Velpeau. Nelaton, Desormeaux, Houël, Labbe, found its use advantageous, whereas Chassaignac, Legouest and Leon LeFort, did not laud it.[12] In the course of the discussion which was raised on this subject in the surgical society, they charged it with causing atrocious pain, with exciting an extremely active inflammation, which was not always easy to subdue. Legouest cited even a case of fatal poisoning. Two cases of the same nature were published in the German medical journals in 1867, and were reproduced by the *Gazette hebdomadaire*,[13] and only served to instill in the minds of prudent practitioners, a distrust of this treatment borrowed from the veterinary surgeon. Notta made an effort to show, it is true, that accidents should be attributed to the bad composition of the remedy, or the vicious manner in which it had been used; but nevertheless, Villatte's liquid had the reputation of causing great pain, the employment of which demanded great precaution, and which ought to be managed with certain prudence. It is only applied in the treatment of carious bones, systematic abscesses and fistulous tracts.

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10. La formule est la Suivant. Sous-acétate de plomb liquide 30 grammes; sulfate de cuivre cristallise, sulfate de zinc cristallisé 15 grammes; Vinaigre de vin blanc, 200 grammes. A. Notta, de l'emploi de la liqueur de Villatte dans le traitement des affections chirurgicales. Paris, 1869, page 4.

11. Notta Note sur l'emploi de la liqueur de Villatte dans le traitement de la carie et des fistules consecutives aux abces froid. *Union Medicale*, 1863, t. xvii, p. 424. Nouvelles recherches sur l'emploi de la liqueur de Villatte, par le docteur Notta. (*Union Medicale*, 1866, t. xxix. p. 99.) Ces mémoires, qui ont valu à l'auteur une distinction l'académique sont reproduits dans le volume de 1869.

12. Séance de 2 mai 1866, *Bulletin de la Société de chirurgie*, 2d, serie t. vii, p. 191.

13. Virchow, Archiv für pathol anatomie, 18 November, 1867. *Gazette hebdomadaire*, de 14 fevrier 1868, p. 108.

3D. THE ALCOHOL TREATMENT.—The interest inspired by the question of disinfectants had not yet died out when the attention of surgeons was called to another method which recommended itself by its simplicity and its ancient origin. It was no longer a question of the effect of a new product of modern chemistry, but it was one of the most common agents, and one very generally used in therapeutics. Alcohol has been employed in the treatment of wounds by surgeons of all ages. A. Pare, Dionis, Percy and Larrey were acquainted with its medicinal virtues, and the laity have never lost sight of them. All the balsams and the vulneraries owe their principal curative properties to alcohol, from the balsam of the centenary plant to the tincture of arnica, which the laity still consider a panacea, and the tincture of camphor, which the works of Raspail have restored to fashion in certain classes of society. It was, therefore, without surprise that the Academy of Sciences received, in 1859, a memoir in which Batailhé and Guillet reported their experience on the employment of alcohol and alcoholic compounds in surgery. [14]

Lestocquoy, of Arras, in 1848, and Prof. Dolbeau, in 1859, had used it before them, but without attaching to it any great importance, and the memoir of Batailhé and Guillet had itself passed almost unperceived, when in 1863 Nelaton adopted this mode of treatment at the "Hospital des Cliniques." [15] The results were very satisfactory. The wounds were maintained in a state of strict cleanliness, and preserved their ruby aspect under the cover of a light film of plastic lymph, and cicatrization appeared to progress more rapidly than by any other method. Secondary accidents were almost always averted, and among ninety-seven patients thus treated they reported only two cases of purulent infection and five of erysipelas. These facts were brought before the public by two interns of their service—Chedevergne, now professor in the medical school of Poitier, and De Gaulejac.[16]

14. Séance du 16 août, 1859 (Comptes rendus, t. xlix, p. 258). Leur mémoire a été imprimé la même année sous ce titre: De l'alcool et des composés alcooliques en Chirurgie, par J. F. Batailhè, Paris, 1859.

15. Nélaton imbibait de la charpie avec de l'eau-de-vie camphree l'appliquait sur les plaies en couches épaisses, en recouvrant le tout d'un morceau de taffetas ciré pour empêcher l'evaporation.

16. Chedevergne, du traitment des plaies chirurgicales par les pansements á l'alcool. (*Bulletin de Therapeutique*, 1864, t. lxvii, p. 249, 308, 346.) De Gaulejac, Du traitment des plaies par l'alcool, thèse inaugurale, Paris, 1864.

Chedevergne had discovered, moreover, that the alcohol decomposes pus, removes its odor, and converts it into a greasy albuminous substance. He had seen with the microscope the purulent globules instantly dissolve on contact with the alcohol. Following this publication the use of alcohol spread still more rapidly than that of the disinfecting powders. Every one hastened to experiment with a remedy which was always at hand. Marc Sée, in a memoir read to the Society of Surgery, December 12th, 1866, confirmed the facts observed at the "Hospital des Cliniques," and presented alcohol as a prophylactic in purulent infection. This last conclusion appeared a little hazardous to some of the members of the society, and especially to Velpeau and to Hippolyte and Larrey. The fact is, that even at the "Hospital des Cliniques" and under the eyes of Nélaton, cases of purulent infection had occurred during the course of this treatment, and that this was demonstrated elsewhere. We will further on express more fully our opinion as to the prophylactic value of all these modes of treatment; for the present we will limit ourselves to stating that alcohol, being always within reach, may have its advantages, and that the surgeons who have restored its use have rendered a true service.

Translations from the German.

PATHOLOGY AND THERAPEUTICS IN OPHTHALMOLOGY. [Taken from Prof. NAGEL'S *Jahresbericht ueber dei Liestungen und Fortschritte im Gebiete der Ophthalmologie.*] By S. POLLAK, M. D., Surgeon to the Eye and Ear Infirmary of the St. Louis Hospital.

DISEASES OF THE CORNEA.

EMMERT, (Arch. f. Angen u. Ohrenh), noticed in a child aged 6 years, a *congenital leucoma*, which was crescent-shaped, intensely white, occupying the lower aspect of the cornea. Touches with aq. chlorii and a solution of salicylic acid effected a cure (?)

FEUER (Transactions Acad. Science, Vienna), experimented on rabbits, the cause of *keratitis neuro-paralytica, after division of the trigeminus.* Section of the trigeminus does not impair directly the nutrition of the cornea, nor diminish its power to external causes. The keratitis is due entirely to the impossibility of closing the lids. The exposed, unprotected cornea within the palpebral commissure is dry, mummified, necrosed, and becomes the incentive of reactive inflammation of the adjacent tissue. The inevitable xerosis is accelerated by diminished lachrymal secretion. This keratitis neuro-paralytica (xerotica) cannot be produced by traumatism, and can be in a measure prevented by closing the lids artificially.

LASVENES (*Gaz. des Hosp.*) reports a case occurring in Brocas' clinic of a *rupture of the cornea*, with traumatic cataract and anterior synechia, which caused sympathetic ophthalmia in the other eye, and had progressed so far that the patient could not walk alone, but which entirely disappeared after an iridectomy *of the injured eye.*

GRAND (*Lyon Medical*) mentions two cases of foreign body in the cornea. In one a piece of iron 8x1 mm. had lodged between the layers of the cornea for five months, without causing a reac-

tion. The other, where a foreign body could not be removed from the cornea, and only after a month caused ulceration and fistula of the same, but which closed again without the removal of the offending body.

HOCK (Oester. Jahrb) recommends a collyrium of tannin—ʒss ad ʒi—not only in phlyctænular, but also in parenchymatous, keratitis. He claims that blepharospasm (photophobia) quickly disappear. He prefers it to the yellow oxide treatment. [My experience does not support these claims. S. P.]

TARRIEUX (*Thèse de Paris*) distinguishes three classes of corneal ulcers—*sthenic*, *asthenic* and *dystrophic*. The first occur in healthy persons, are characterized by symptoms of inflammation, and heal readily. The second penetrate deeper, and occupy the center of the cornea; without any striking inflammatory symptoms, are found only in bad constitutions. The third class comprises those arising from an impaired nutrition of the cornea, by either an increased tension or a neuro-paralysis of the same.

CRITCHETT (*Med. Examiner*) tells of a physician who had wounded his eye with a vaccinating lancet. In spite of immediate washing and cleansing a violent inflammation ensued in twenty-four hours. In the outer lower third of the cornea a seropurulent infiltration, with elevated center, developed itself, which terminated in a large leucoma.

VOSE SOLOMON (*Lancet*), in case of *pannus*, where the sclera and margin of the cornea were equally red, and the center of the cornea somewhat raised, infiltrated, yellowish white, made a free vertical incision through the cornea with a Graafe knife. The wound healed in a few weeks, cornea cleared up, pupil visible.

MEINHARDT (*Archives d'Opth.*) explains his views of the origin of pterygium, which is always preceded by a pinguecula, causing traction upon the conjunctiva, ulceration of the cornea, and pterygium develops. He found frequently behind the apex of the pterygium small granules, which on the cornea appeared gray, and the limbus yellow, and under the microscope showed to be pingueculie. Pterygium consists of a duplicature of the conjunctiva; only in the middle part of it, which attaches narrowly to

the cornea, is the conjunctiva single, the upper surface lined with epithelium. He agrees with Arlt, that traumatism of the cornea and a drawing in of the conjunctiva into the lost substance, is the origin of pterygium, with a subsequent addition of pinguecula.

NOYES (Report Fifth International Opth. Congress) performed twice an operation for *kerato-conus*—once by trephining, and once by abscission of the apex with knife and scissors, and sewing up the wound with great difficulty. In both cases anterior synechia ensued, requiring subsequent iridectomy. He insists that the sutures should remain undisturbed until solid union had taken place. Myopia is not always the main optical error in keratoconus; hypermetropia and astigmatism have been found with it, and in one case a monocular diplopia has been met with.

HAYNES WALTON (Pract. Treat. Dis. Eyes) discards the use of atropine in *phlyctænular keratitis*. He does not believe in its power of diminishing tension, or irritation, nor of causing anæsthesia of the ciliary nerves. He found the alkaloid rather injurious in keratitis phlyctænulosa. Many persons are very susceptible to its toxic effect; it may cause irritation of the conjunctiva, erysipelas of the lids and cheeks. The dilated pupil makes the eye very sensitive to light. [Would not *Duboisia* answer better?]

PANAS (*Union Medicale*) describes as *keratitis punctata* a disease known as descemetitis (*iritis serosa*). It occurs frequently in conjunction with gonorrhœa or gonorrhœal rheumatism. An abundant gonorrhœa, which is seated in the deeper layers of the urethra, and which is complicated with cystitis, prostatitis and orchitis, chiefly gives rise to this affection. It will never be called forth by a mild case of gonorrhœa. It is rarely found with woman, except with real urethritis, but never with vaginal or uterine blenorrhœa. Panas explains this hypothesis, that cystitis is extended to the kidneys, which secrete less and eliminate also less uric acid. The accumulation of the latter is the cause of the affection of the joints, cornea and iris.

BULL, CH. S., (*N. Y. Med. Record*) made use of *iodoform* in *phlyctænular keratitis* with good results. He applies the finely powdered iodoform with a camel's hair pencil. It causes neither

reaction nor pain; it has an anæsthetic, and consequently an antiphlogistic, effect. It is possible that the local application affects the general condition. Not being soluble in water, it is not probable that resorption emanates from the conjunctival sac. In scrofulous individuals it can be given internally, $\frac{1}{3}$ to 1 gr. three times a day. The solution of iodoform—iodoform, 1 to 3 parts; glycerine, 30 parts; alcohol, 10 parts—is not admissible, on account of its irritating effect.

KRUCKOW (*Arch. d'Opth.*) describes two cases of *congenital* corneal staphyloma, which were enucleated. Both were the product of an intrauterine keratitis. One eye showed a staphyloma cornea racemosum, in whose development an iriscyst was internally interwoven. The other was only remarkable for the total absence of the crystalline lens. In both cases the remaining eye was microphthalmic.

ACHTERMANN (Inaugural Dis.) on *herpes cornea*. He divides the same into two classes: in herpes cornea inflammatorius, and in herpes cornea neuralgicus. It must not be supposed that the inflammatory basis is wanting in the latter, though there are distinctive differences, both in symptoms and progress.

The *herpes neuralgicus* appears always upon an already irritated cornea, which had suffered from phlyctænula, pannus, diffuse keratitis, conjunctivitis, ulceration, traumatism, neuralgia of trigeminus. The vesicular eruption is not necessarily connected with inflammation; the elevated epithelium and the residual necrosed corneal tissue disappear quickly. Often, but not always, are violent pains present. Relapses are frequent, though not always regular; and again, they may return with the regularity of a typical neuralgia.

The *herpes inflammatorius* begins usually on a healthy cornea, with pain and great hyperæmia; the vesicular eruption makes its advent usually simultaneously with a catarrh of the respiratory tract, and with a herpes nasalis and labialis. The number of vesicules is smaller, but their size is larger than in *herpes neuralgicus*. The regeneration of the epithelium is very slow, and may give rise to purulent infiltration of the cornea, to hypopion. Relapses are rare.

There are also marked distinctions between herpes neuralgicus and keratitis phlyctænulosa. The vesicules in herpes neu-

ralgicus are clear, transparent, containing only serum; in keratitis phlyctænulosa they are small, gray, turbid elevations, the contents of which are cells. Pannus develops early in the latter, and very late in the former. Relapses follow each other in rapid succession; almost daily a new eruption. Tension is rather increased in herpes neuralgicus, increased in keratitis phlyctænulosa.

COPPEZ (*Ann. d'Ocul.*) cites seven cases of *zoster ophthalmicus*. He calls particular attention to the fact that, contrary to Hutchinson, the eye may be affected, and the Schneiderian membrane may be entirely exempt. The severity of the skin disease is not always in proportion to that of the eye. In one case the skin was marked with numerous deep cicatrices, and yet the eye had not suffered. In another a grave irido-choriditis, with keratitis, broke out, while the skin showed only a few shallow cicatrices.

The zoster attacks rather vigorous persons, than feeble ones; rather men than women. The older the individual, the more intense and violent appears the attack. The zoster can easily be mistaken for erysipelas bullosum, for eczema. In the acute stage, only *cold* fomentation should be made. [We found *hot* fomentation far more satisfactory.]

ARMIEUX (*Gazette Med.*) recommended for clearing up extensive leucomas, the following proceedings: Perforate the leucoma in many places with a scarpas needle, and then instill five drops of the following collyrium: Pot. iod., 5.0; tinct. iodi. gtt., 30; aq. distil., 30.0. This operation has to be repeated twice a week. [A doubtful and hazardous treatment.]

Translations from the Italian.

Extracts from *Giornale Internazionale della Scienza Medicale*, Oct., Nov., and Dec., 1878. [Translated for THE JOURNAL by Dr. A. H. Ohmann-Dumesnil.

DURATION OF PREGNANCY.—Dr. Stadfeldt (*Giornale Internazionale della Mediche*, Oct., 1878,) says that an examination of over sixty-five cases has lead him to conclude that the mean duration of pregnancy is 274 days and within the limits of 250 and 293. In twenty-four cases, in which he determined the time from the first suppression of the menses, the mean period was 254 days and the extreme limits 240 and 273. From this he thinks that the duration of pregnancy ought to be reckoned from the first suppression of the menstrual flow, although modern physiologists are by no means inclined to admit that the fecundated ovum is derived from the previous ovulation.

This method of calculating would tend to prove the duration of pregnancy much shorter than it has generally been held (the mean being 254 days, as above).—*Virchow's Jahresberichte.*

GELSEMIUM SEMPERVORENS.—Dr. V. Cozzolino (*Giorn. Internazionale della Scienza Med.*, Oct. and Dec., 1878), thinks that this plant merits greater attention on account of its therapeutic properties. The only preparation now used is the tincture. Prof. Wormley, of Ohio, has extracted two bodies from it, gelsemic acid and gelsemina. The experience of Isaac Ott, as given to the author, is to the effect that gelsemic acid augments at the beginning and paralyzes reflex excitability. The alkaloid, in larger doses, acts in the same manner, but its action is not constant. In all cases the effects of the acid are much more reliable than that of the alkaloid.

When administered to a healthy person, according to W. C. Hull, it produces shivering, delirium, dilatation of the pupils, ambliopia, diplopia, cerebral congestion, general prostration and muscular resolution. The congestion, the result of vaso-motor paralysis, precedes all other phenomena of paralysis. He con-

cludes that gelsemium acts on the ganglionic centers of the encephalon and the great sympathetic, so far as all innervation of vessels is concerned.

The principal and, perhaps, the only application of gelsemium has been as an excellent anti-neuralgic. Cordis, of Geneva, has highly recommended it in neuralgia, unless it be of a congestive form. He used the drug in the form of tincture in doses varying from five to twenty drops and the relief that followed was almost instantaneous. Spencer Thomson has adopted it in almost all neuralgias and has seen good effects, particularly in those connected with the dental nerves. He has further noted that it has a prompt action, that is almost marvellous, on neuralgia; whilst, on the other hand, quinine, carbonate of iron and arsenic have a powerful but slow effect.

It is almost superfluous to add that the tincture of gelsemium is contra-indicated in any inflammation of long standing, in any active congestion or wherever there is an incipient one.

In conclusion it may be *apropos* to state that Hull regards its anti-periodic effect as its principal therapeutic virtue.

ANATOMICAL ANOMALIES.—Dr. P. Lupo (*Giorn. Internazionale della Science Med.* Oct., Nov., Dec., 1878) has observed two interesting anomalies.

I. *Anomaly of Muscles*—Above the abductor brevis pollicis, he found a small muscle perfectly separated from the former, and placed somewhat transversely. This small muscle of a quadrangular form, somewhat elongated, takes its origin from the annular ligament, a little to the radial side of the first metacarpal bone. The author has found it present in six cases out of one hundred, the attachments being different in two cases.

II. *Anomaly of Nerve*—The usual bifurcation of the inferior dental nerve at or near the mental foramen was varied as follows: one and one-half centimeters before the termination of the dental canal, at the mental foramen, a small canal branched off having a direction almost perpendicular and terminating in a foramen near the alveolar margin, corresponding in position to the third molar tooth. The nerve issued from this foramen and into two branches, one penetrating anteriorly and the other posteriorly, the buccinator muscle, where they were lost. He has observed this twice; in one case it existed on one side, and in the other on both sides.

Vesico-Vagino-Rectal Cloaca.—Dr. G. Consalvi (*Giornale Internazionale della Scienza Medicale*, October, November, December, 1878), contributed a paper on a most interesting and rare case, followed by successful treatment, with a good result. The case was observed at the Obstetric and Gynæcological Clinic of Naples (under the care of Prof. Morisani.) The patient, Angiola Deserio, was aged 25, and married. Previous to her present infirmity she had never suffered from any sickness. About eight months previous to her admission to the clinic she had found herself, for the first time, parturient after a regular gestation. The cephalic extremity of the child presented, in what position and presentation the author ignores. The labor was suddenly arrested, and manipulation did no good, the child remaining in the excavation *six days (!)* After this the physician attending her determined to extract with the forceps. As soon as this was accomplished he saw fæcal matter escaping from the vulva. Her menstrual epochs did not return.

On external inspection everything appeared normal, the vulva being regular in shape, though prolonged backwards a little more than ordinary; the anal orifice and the sphincter normal. The perineum was small, measuring about one centimeter in width. Opening the vulva disclosed the vagina (or the space occupied by it) filled with a body of corrugated exterior, red color, and bleeding easily, which, being depressed, could be reduced with ease, and seemed to be the mucous surface of the anterior wall of the bladder. At the base of the vestibule a thick cicatrix of circular *formeatus urianicus* could be felt, the urethra and posterior wall of the bladder missing. The vagina was totally wanting, the fourchette being the only remains of a recto-vaginal partition left. An oval opening in the rectum permitted the contents of the bowel to be discharged in the common opening. The whole was a large opening, terminating superiorily in a *cul-de-sac,* and here a hard body, conjectured by the author to be the uterus, could be felt, though no orifice was found. Examination with a speculum was not attended by any better results than by the digital method. The patient found it impossible to stand, and sat on the ground, her back to a wall, her thighs flexed upon her abdomen, looking with her stupid face more like a brute than a human being. Her manner of locomotion consisted in a peculiar dragging movement.

The author proposed operative measures to cause complete

occlusion of the vulva. To this Prof. Morisani demurred, doubting whether, in such a case, the fæces and urine would void themselves in the rectum rather than escape in the cloaca.

[Here follows a history and description of the method employed (episiorraphy)]. It was finally determined to give the operation a trial. The patient, after a proper preliminary treatment, was deemed proper to operate upon. The labia majora were "freshened" from one commissure to the other and brought in complete apposition by 7 deep and 3 superficial sutures, completely closing the vulva. A tube was inserted in the rectum to give free egress to the fæces and urine.

First day—The labia became enormously œdematous some hours after the operation.

Third day—The superficial sutures removed.

Sixth day—The deep sutures ulcerated through, the vulva being perfectly closed throughout its entire extent.

Seventh day—A high fever, an intense inflammation having arisen at the site of the operation; the anal tube removed.

Eighth day—Two fissures appeared, through which fæces and urine passed. The vulva still closed but only superficially. Washed the fissures with phenic (carbolic) acid solution, internally and externally.

Ninth day—Same wash and application of nitrate of silver.

Fourteenth day—Adhesion almost complete; on the left side perfect. On the right, a small opening still left. Persistent continuation of the treatment resulted on.

Ninteenth day—In a complete closure.

The results of the operation, according to the author, are "marvellous and beyond all expectation." The patient can hold the fæces and urine in the rectum and discharge them voluntarily, and can assume any position without inconvenience. The cicatrix is not perceptible and only to where the labia are separated. He regards the case as of great interest both on account of the success of the operation and on account of the variety and complexity of the lesion.

A CASE OF INTESTINAL OCCLUSION.—Dr. D. Antonio Parellada gives (*Cronica Medico-quirurgica de la Habana*, May 1879) an account of an interesting case in the care of Dr. Cartaya of Matanzas. The history is as follows: A girl, Flora, æt 19, without having had any previous symptoms, suddenly took sick in Sept.

1878. She had pains in the belly, great constriction and pertinaceous vomiting of greenish matter; the next day she went to the hospitial. Enemas and purgatives were administered with no result; two day's later similar medicaments and applications to the abdomen with no better result. In fact, far from becoming better, the symptoms became more alarming, the vomiting becoming stercoraceous, the constriction continuing and the pulse being hard. A third trial of enemas, with warm baths, was made; no result. On the tenth day, the patient was so low that one of the house physicians proposed to arrive at a correct diagnosis by means of gastrotomy or enterotomy, to which the patient's parents violently opposed themselves. In this strait Dr. Cartaya was summoned. The patient was put in a supine position (the only one in which she could remain); the abdomen showing an increase of volume and twists of gut being plainly marked on the skin. The face was profoundly altered and pulse feeble; the anus excoriated and very tender. Internal occlusion produced by invagination of the intestine was the diagnosis arrived at.

Taking a slender trocar the physician pierced the gut in four different places and let out a large quantity of gas of a sulphurous odor. Instant relief of patient followed. The abdomen having diminished considerably in volume the obstructed part could be felt and was relieved by a process of kneading or taxis, the disengagement being followed by slight pain and noisy borborygmus. The patientw as then put in a bath and on arriving out evaeuated her bowels copiously; she had several passages from the bowels during the night. She was very weak but a tonic treatment soon restored her to her normal health.

Dr. Parellada remarks that intestinal obstructions and occlusions are determined by such different causes that, in regard to symptoms, they seem to be as varied as the causes themselves. On this account it is very difficult to arrive at a correct diagnosis. Besides other diseases, such as intestinal paralysis, saturnismus, inflammation of peritoneal covering of the bowels and others, simulate the same symptoms in part.

The causes which may partially or completely occlude the intestines are agglutination by pressure from without, such as are caused by tumors, ovarian or of the pelvis, or by vicious inclinations of the uterus; modification of the texture of the intestinal walls; ulcers, dysenteric, catarrhal, follicular or tubercular,

cancerous degenerations, etc. This slight notice is sufficient to show the difficulties attending such cases.

Invagination, intussusception or intromission is an accident pretty frequently met with in early years and not very rare in adult life. When the invaginated gut is the colon, diagnosis is comparatively easy and may sometimes be recognized *per rectum*. The persistent constipation, tense abdomen, feeling of fullness, tympanitis, colicky pains, vomiting (first of food and later of excrements) and common symptoms of all obstructions which, when the cause persists for several days, or when the occlusion is complete, induce the most horrible sufferings, most obstinate vomiting of fæcal matter; then follows rigors, quickening of the pulse and death. The treatment so opportunely used in the above case is that recommended by V. Cornill of the Hospital de la Salpetriere, Paris.

A NEW AMPHITHEATRE—A distingushed physician proposed to the municipal council of Havana to have a building constructed, which, besides containing a room for exposing and identifying bodies, should have a commodious amphitheatre provided with all the conveniences necessary to the pursuit of necroscopic investigations. A medical student to keep a record of all work in a register made for the purpose.

This suggestion was acted upon and post-mortem examinations are conducted by professors, not connected with any college; also lectures on medico-legal questions.

The advantages of this are obvious and Havana has no small reason to congratulate herself upon the innovation. It is proper to state that it was chiefly through the efforts of Dr. D. Antonis Diaz Albreini, a member of the town council, that the suggestion was carried through to a practical end.—*Cronica Medico-Quirurgica de la Habana*, May 1879.

Proceedings of Medical Societies.

Southern Illinois Medical Association.

This is one of the progressive societies of the Mississippi Valley, and if we may judge from the recent meeting of June 18 and 19, at Sparta, it is most successful. A large number of earnest, active members were present when the Association was called to order by the President, Dr. C. W. Dunning, of Cairo, whose untiring efforts in behalf of the Association are fast being rewarded. Prayer was offered by Rev. J. W. Bailey, D. D., whose presence and kindly words during the subsequent session it is pleasant to recall.

The Mayor, T. C. Perkins, Esq., welcomed the visitors in a speech, which, neither too long nor too short, was full of wit and information about the staid little city, and showing commendable pride in the Sparta doctors. A fitting reply was made by the venerable champion of true medicine, Dr. L. Pyer, of Du-Quoin.

Dr. Guthrie, of Sparta, on behalf of the Committee of Arrangements, formally received the members and spoke directly as to the objects of the meeting: first, renewing old friendships and forming new ones; second, mutual improvements. He struck with a firm hand the key-note of the most harmonious expression regarding the need of a higher grade of education in all classes of society, but especially in the medical profession.

The regular order of business was then taken up, and some able papers read, which will receive due notice when published.

In the evening Dr. C. H. Hughes, of St. Louis, lectured in the Presbyterian church; subject, "A Cursory View of Insanity." Those who know the Doctor need not the information that the lecture was not only well prepared but well delivered. Such an address as might be expected from an acknowledged expert.

During the morning of the second day the reading and discussion of papers occupied almost the entire session. The committee on Necrology, through its Chairman, Dr. Hammock, reported resolutions touching the death of two members, Drs. Theo. Meyer, of Belleville and G. W. Schuchart, of Jonesboro, each a prominent member of the Association.

A matter of business was here introduced, characteristic of the sense of the members in regard to professional honor. It seems that one of the members had recommended an improper

person as a candidate for a physician's certificate from the State Board of Health. On the strength of this recommendation a certificate was granted and the recipient promptly appeared as an advertising quack. The unfortunate member was at once cited to answer charges founded on the statement made.

During the discussion which followed the mention of the matter, Dr. H. U. Ferrel took the most advanced ground, by saying that "quacks and ignorant pretenders may gain admittance by three avenues open to anybody: they may enter as graduates from 'respectable medical colleges;' they may enter under the ten year clause, as 'ten-yearlings;' they may enter as pupils practicing under a preceptor who may live many miles distant and who may not see their 'pupil' once in twelve months." The speaker cited an instance where a man who had not been in the State one year, made affidavit that he had practiced in the State the orthodox ten years, was recommended by politicians and licensed to practice. "Is this as it should be? Is it for the interest either of the profession or the public that it should be so? That it is to the interest of the public that medical men should be both honorable and competent, we take it as a self-evident proposition. Can the portals of the medical profession be so guarded as to prevent the ingress of such persons? We think they can. How? Let our State legislature take from all medical colleges in the State the power of conferring the degree of M. D., and place that power solely in the hands of a board of examiners appointed by the Governor and with the advice and consent of the senate; let them be appointed for their known high standing as medical men, no one to have any connection, directly or indirectly, with any medical college; pay them a respectable salary. Let them hold office during life or good behavior; let all vacancies be filled by the board; let that board act under oath, and be held criminally responsible for any violation of that oath.

Admit no one to the practice of medicine in the State of Illinois who does not hold a diploma from that board conferred after a thorough examination. What would be the effect of such a law? We would have fewer medical colleges, but we would have better ones; we would have fewer doctors, but we would have better ones. What would be its effects upon those already in the profession—graduates of respectable medical colleges. It is a well-known fact, that in the eyes of the public a diploma is simply a diploma, and Dr. A's diploma, obtained after a long course of study, capped by a thorough and searching examination, is worth no more as an evidence of proficiency than Dr. B's, obtained in three weeks. Now, many graduates in medicine, recognizing this fact, together with the further fact that a diploma is no evidence of proficiency, would ignore their diploma and go before this board for its examination and degree." The earnestness with which this was spoken and the assent which greeted it, showed plainly that doctors of Southern Illi-

nois are alive to the best interests of the profession, and give no "uncertain sound" when called on.

In the afternoon Dr. Hodgen entertained the Association by detailing some of "my blunders." This, which on the part of most men would be hazardous, was a frank and free narration of a few of the straits met with and responsibilities unavoidable in a large surgical practice. Certainly the Society felt that while few men make so few mistakes as the doctor, not many are brave enough to draw lessons from these "blunders" to benefit others.

In the evening a large audience gathered in the U. P. Church, to listen to an address by Dr. Hodgen, under the auspices of the Association. The subject, "A Uniform Plan in Development," was plainly and intelligently dealt with, and illustrated by free-hand drawings on the black board. As it was for the public, the public understood and appreciated it. Would that the people everywhere had more such simple instructions on matters so important.

Before the Association adjourned (to meet in Cairo, in January), thanks were passed to those whose favors added so much to the pleasure of all. The city authorities had been kind, the hotel-keepers generous, and as though to excel all else, the physicians of Sparta kept "open houses" to the utmost extent.

Sparta, we may add, is a busy, temperate little city worthy of its ancient name, and pleasantly located on the Cairo and St. Louis (narrow gauge) R. R. Much of its prosperity is due to this road which, through enterprise and careful management, has become one of the institutions of this part of the State. VIATOR.

CENTRAL KANSAS MEDICAL SOCIETY.

Pursuant to a call, the physicians of Ellsworth, McPherson, Reno and Rice counties met at Sterling, Kansas, in Odd Fellows Hall, for the purpose of organizing a medical society. Dr. Robinson, of Hutchinson, was called to the Chair, and Dr. Burton, of Raymond, was chosen Secretary. Drs. Smolt, Murphy, and Adams, were appointed a Committee on Credentials, and reported favorably on the following gentleman:

Dr. N. T. P. Robinson, Hutchinson; Dr. E. G. Minnick, Ellsworth; Dr. G. F. Wright, Ellsworth; Dr. J. S. Chase, Lyons; Dr. W. C. Burden, Raymond; Dr. H. S. Havinghorst, Allegan; Dr. H. C. Frarrer, Ellsworth; Dr. M. H. Haskins, Empire; Dr. F. Sieber, Ellsworth; Dr. L. W. Whistler, Wilson; Dr. W. A. Shelton, McPherson; Dr. W. M. Lamb, Sterling; Dr. J. O. Day, McPherson; Dr. P. P. Trueheart, Sterling; Dr. E. W.

Adams, McPherson; Dr. N. F. Terry, Lyons; Dr. W. W. Murphy, McPherson; Dr. C. F. Smolt, Nickerson; Dr. W. W. Spiers, Raymond; Dr. J. W. Goodson, Sterling; Dr. L. O. Lockwood, Ellsworth.

Next in order was the election of officers, which resulted as follows:

President—Dr. N. T. P. Robinson, of Hutchinson.

Vice-President—Dr. P. P. Trueheart, of Sterling.

Secretary—Dr. N. F. Terry, of Lyons.

Treasurer—Dr. F. Sieber, of Ellsworth.

Board of Censors—Dr. W. W. Murphy, of McPherson; Dr. C. F. Smolt, of Nickerson; Dr. C. W. Adams, of McPherson.

Drs. Haskins, Chase and Lamb were appointed a committee on Constitution and By-laws.

The Committee on Programme made the following report:

General Essayist, Dr. F. Sieber.

Uterine Hemorrhage, Dr. C. W. Adams.

Antiseptic Surgery, Dr. N. T. P. Robinson.

Puerperal Eclampsia, Dr. W. W. Murphy.

Advancement in Surgery, Dr. P. P. Trueheart.

Parasites, Dr. W. A. Shelton.

Injuries to Cranium and its Contents, Dr. N. F. Terry.

Hemorrhoids, Dr. E. C. Minnick.

New Remedies, Dr. J. O. Day.

Eye and Ear, Dr. W. M. Lamb.

Medical Literature, Dr. G. F. Wright.

The organization was called the Central Kansas Medical Society.

Dr. Murphy moved that a vote of thanks be returned to the Odd Fellows of Sterling for the use of their hall. Carried.

On motion, the Society adjourned to meet in Ellsworth, on the first Wednesday in July, at 2:30. P. M.

AMERICAN LARYNGOLOGICAL ASSOCIATION.

This Association held their first annual meeting in New York at Delmonico's Parlor No. 10, June 10, 11 and 12, 1879.

MORNING SESSION.

After roll call, and the reception of guests with an address of welcome, Dr. J. Solis Cohen, of Philadelphia, exhibited two models which illustrated the analysis of the lines of muscular force controlling the glottis, and also exhibited patients in which there was laryngeal paralysis of different forms. These models

illustrated the subject much better than could be done by mere description.

Dr. F. J. Knight of Boston, read a paper on retro-pharyngeal sarcoma. This was discussed at length by Dr. Geo. M. Lefferts of New York, and others.

Dr. L. Elsberg of New York, then exhibited a perfected sponge carrier. This was discussed by Dr. J. Solis Cohen of Philadelphia.

Dr. Clinton Wagner of New York, being sick, his paper on nasal stenosis was deferred to the next meeting, and in place of it, Dr. Thomas F. Rumbold, of St. Louis, read a paper on the treatment of nasal catarrh, and exhibited his instruments for the application of remedies locally. The paper was discussed by Drs. Beverly Robinson of New York, Carl Seiler of Philadelphia, and Shurley of Detroit, Mich.

AFTERNOON SESSION.

Dr. G. M. Lefferts, of New York, read a very interesting paper on corea laryngealis. This was discussed by a number of members.

Dr. R. P. Lincoln, of New York, read a paper on naso-pharyngeal polypus, and exhibited two patients from whom he had removed polypi. The discussion occupied the remainder of the afternoon session.

ANNUAL ADDRESS.

There being no session in the forenoon of June 11, at 2 P. M. the President, Dr. Elsberg, read his annual address. This gave a long history of laryngology. It will appear in a future number of this journal. A vote of thanks was given to the President for the paper.

Dr. E. Cutler, of Cambridge, Mass., read a paper on the larynx and the uterus, showing that there were a great many cases of disease of the throat, which depended to a great extent on diseases of the uterus. The paper was commented upon favorably by Dr. Thomas F. Rumbold, of St. Louis.

Dr. T. H. Bosworth, of New York, read a report of a case of primary tubercular ulcer of the larynx, followed by laryngeal and pulmonary tuberculosis; also a paper on a case of syphilitic stenosis of the larynx, in which he presented an artificial vocal apparatus. The discussion of this paper occupied the attention of the fellows up to the time of adjournment.

Dr. J. H. Hartman, of Baltimore, read an interesting paper on laryngeal hemorrhage. This was discussed by Dr. Rumbold, of St. Louis, who also related the history of two cases that came under his observation. The subject was also discussed by Drs. Cohen and Elsberg.

Dr. E. L. Shurley, of Detroit, read an interesting paper on the galvano-cautery in the treatment of diseases of the nose and

pharynx, and exhibited instruments of his own invention which he used for this purpose. His nose speculum or guard is quite ingenious. At a subsequent meeting, Dr. Duncan, of New York, exhibited his galvano-cautery knife for operations on the same kind of tumors.

ELECTION OF OFFICERS.

On June 12th, at 2 P. M., an election of officers for 1879 and 1880 was held, and resulted in the election of the following:

President—Dr. Louis Elsberg, of New York.

Vice-President—Dr. Frank H. Davis, of Chicago.

Secretary and Treasurer—Dr. G. M. Lefferts, of New York.

Member of the Council—R. P. Lincoln, of New York. (The other members of the council hold over).

Librarian—Dr. Frank H. Bosworth, of New York.

At this meeting, new fellows were added to the Association. Dr. R. H. Kealhofer, of St. Louis, was among this number.

Dr. Carl Seiler, of Philadelphia, read a paper on the researches of the anatomy of the vocal cords. This valuable paper was a lengthy one, and contained newly acquired information.

On the evening of June 11th, the fellow residents of New York gave the Association a banquet at Delmonico's Parlor No. 10.

Clinical Reports from Private Practice.

CONSERVATIVE SURGERY *per se*. By JOSEPH L. BAUER, M. D., of St. Libory, Ill.

Remarkable accomplishments in surgery during the present century are not novel. The spirit of progress has kept pace with the other sciences, and it is a wonder that ignoramuses can exist where *literature* is so easily secured and competent experience so readily utilized. Notwithstanding this acknowledgement, State and municipal Legislatures have enacted laws to "better protect the lives of individuals" and to assist the better part of the profession in their war against ignorant and incompetent practitioners. The State of Illinois has a settled code of laws to accomplish this purpose, with the additional requirement of the "death certificate." What results have been achieved by them can be gleaned by the following interesting case:

CASE I.—P. Y., a German, aged about 35 years, was hauling logs. Falling from his wagon, the wheels passed over his left

leg, fracturing the fibula at its lower third, about two inches above the ankle-joint. The weather was cold, and the patient managed to crawl into a fence-corner to await assistance. He was removed to his home, and an "accomplished surgeon" sent for. When he arrived he made an examination, and stated that it was a small matter, and likely to recover in a short time. What he did to accomplish this result may be learned by the following quotations from the letter of the surgeon last in charge: "I arrived at his residence about half past 4 A. M., and was told that the patient had been dead an hour and a half. I examined the body. The stench in the room was fearful; found left leg in a fracture-box covered with a sack of dry bran and supported with old rags. The foot was enormously swollen, and I noticed several large blebs or blisters on the foot, filled with bloody serum. *Around the ankle was a bandage, commencing about five or six inches up the leg.* I removed this, and found a compound fracture of the fibula at its lower third, the bone having penetrated the skin. I could discover no fracture of the tibia. The foot and leg were greatly *swollen* and *discoloréd*, with the exception of the part covered by the bandage, which was the natural size. Almost the entire leg was black. On the calf of the leg above the bandage the attending surgeon had made a deep incision a few minutes before death; but stated to the friends it was too late. He (the said surgeon) had also explained the structure of the leg to the friends in this manner: 'In the leg below the knee are three bones, one big bone in the middle and two little bones on each side. It is the little bone on the outside of the leg that is broken.' The attending surgeon would not allow another to be called till about two hours before death, when any one could have seen that the patient was *in articulo mortis*, saying it was unnecessary. * * * * * * * * You will observe that the roller was applied to the ankle, leaving the foot bare, and that it would be difficult to apply a bandage in that manner loosely enough not to produce mischief."

I have attended the widow of the deceased and I can corroborate the statement of the physician called post mortem. Further comment as to the cause of death is of course unnecessary. The "surgeon" in question has repeatedly said that it did not pay to call counsel for various reasons, and he had abandoned that method of consultation. The certificate of death has appeared, and we are left to question his ante mortem diagnosis and the three bones. This surgeon registers as a "Licentiate of the Canton of Cargan, Switzerland." Licentiate of what can be judged by the case.

ANOTHER CASE OF ERYTHEMA. By ISAAC MOORE, M. D., of Portage de Sioux, Mo.

EDITOR JOURNAL:—I notice with no little interest your report of the proceedings of the St. Louis Medical Society, in your JOURNAL of May last, of a case of erythema, brought before the Society by Dr. G. Hurt. Now, with the desire of getting as well as giving more information upon the subject, I will report another case: Joseph Martineau, a young man eighteen years of age, French descent, a farmer by occupation—never did anything else—called to see me about his peculiar disease. On examination, I found his arms and hands, legs and feet were considerably swollen, and with a dark purple color; appetite good; sleep rather good; bowels about regular; said he had been using the hoe exclusively in the field this season; had one chill about a week previous to this discoloration of his limbs. The swelling continued until it became dropsical. He also complained of stiffness of his limbs. His pulse was somewhat accelerated. I am satisfied that it is one and the same disease as that of Dr. Hurt's case, but this could not have produced, as Dr. Prewitt thinks, of handling of different articles. Nor could it have been brought on in this case by any external irritant to the skin, as Drs. Johnston and Stephens thought, unless by the atmosphere, or pure water, or both. As Dr. Coles thinks, I think that there was a condition of nervous paralysis; that there is some neurosis, and I am under the impression that it is caused by malarial poison. And again, I think the seat of the disease will be found at the spinal cord.

As I had never seen a case of the kind before, I was at a loss to know what to do with my patient, but finally concluded to give him the following:

℞. Quinine.....grs. lx.
Tr. Aconite.....℥iij.
Tr. Sanguinaria } aa.....℥ij.
Spr. nil. ether... }
Syr. symplex.....℥i. M.
Sig.—Take a spoonful every four hours.

In six days I discharged him well. I will be glad to hear more on this subject.

Periscope of Current Medical and Scientific Literature.

VENEREAL DISEASES.

CLINICAL LECTURE ON SYPHILIS IN RELATION TO MARRIAGE. (Dr. Alfred Fournier.)—The question whether a man who has contracted syphilis may marry is one which is not infrequently asked of a physician, and one which he may not avoid, notwithstanding that it casts upon him the gravest responsibility. If his anwer be a positive "No" it is apt to involve for the inquirer celibacy, with irregularities the temptation to which he can not resist, the deprivation of all that is dear in the idea of family, and many evils which may result from these. If the answer be "Yes," there may ensue equally disastrous consequences. The marriage relation may be the means of communicating to his wife the disease under which he labors; and his children may die before their birth, or come into the world unfit to exist. What can be more terrible than the position of such a man *vis a-vis* his wife and children? Remember this, gentleman, when asked this momentous question.

But, from what I have said, are you to conclude that syphilis is an unsurmountable obstacle to marriage? No, it must not be so considered. This I may say with positiveness, since there have been cases enough to demonstrate its truth; cases where the disease has been communicated to neither wife nor children. I have myself seen fifty-one such, and eighty-two children born and living healthy in spite of the previous disease of their father. When I reflect upon these happy families, I can not but think what an error I should have committed had I always said an inflexible "No!" to the question whether marriage is permissible after contracting syphilis.

My answer to this question is not "No," but "Yes"—under certain conditions. It must be well weighed that syphilis is dangerous in three ways; 1st, to the wife; 2d, to the child; 3d, to the family relation.

First, then, syphilis is dangerous to the wife, for she may contract the disease from manifestations recurring after it seems to have subsided, or from secondary lesions upon any part of the body by means of the multiplicity of contacts and *rapports*, so incessant and intimate, of married life. It is very rarely that under such circumstances a woman escapes contagion from a man with secondary syphilis.

But besides this there is a means of contagion less apparent, less likely to be suspected. A young woman may present manifestations of secondary syphilis and no sign of a primary lesion. The husband, in distress, declares that he himself has had no lesion since he married; that, with your warning against this danger in his mind, he examined himself carefully and constantly, and that he trusted your assurance that all was right. How can this be accounted for? Infallibly in such a case you find that the wife is at that time pregnant, or that she has recently aborted. The syphilis was communicated by conception. Of the way in which this takes place we know absolutely nothing. Of the fact my experience does not permit me to doubt.

In the second place, besides the danger to the wife, and even should she escape, syphilis involves the child in danger. The error of teaching that paternal influence is not to be dreaded is enormous. When it is seen how the father's influence makes itself known in the offspring, in form, shape, height, and tendency to special diseases of body and mind, how can we deny the force of analogy in regard to syphilis?

There are cases, it is true, where the father has not communicated this disease to his child, and enough of them; as, for example, where a syphilitic man had, at about the same time, a child by his wife, who was syphilitic, and so was the child, and one by his mistress, who was not syphilitic, and her child was sound. A second instance I can quote of a syphilitic man whose child was born healthy and contracted the disease two years later from its father's kisses.

But this concession is only one side of the question. On the other hand, it is a rare occurrence, but true, that a father has begotten a syphilitic child and the mother remained unaffected. Besides which, we must take into consideration the important matter of abortion, which occurs so often with no other cause discoverable upon the most searching examination. When such cases come under your notice, where abortion has followed abortion in women apparently healthy, you may suspect, and will usually find, that it is due to the syphilitic influence of the father upon the fœtus.

Thus much of children whose father alone is syphilitic. When both parents are diseased we find that the children die *in utero*, or born with syphilis, or with a miserable, weak, cachectic constitution, ready to fall a prey to disease of almost every sort. I can recite you the case of a women who having given birth to three healthy children, contracted syphilis from her husband and then had four still births and three abortions in succession.

The children of the second class, born with syphilis, for the most part do not live long. The disease soon terminates their existence. Those of the third class may show their debility at once, or give no sign, looking well the day of their birth and dying the next, without apparent cause; or they may grow

awhile, delicate and feeble, with little power to resist disease, and predisposed to scrofula, idiocy and convulsions.

In the third place, syphilis is dangerous to the family relation. I am not a preacher, gentlemen, but I speak to you *en honnete homme*. We may not, in the discharge of our professional duties, overlook the importance, to the state and to mankind, of the social relations. And so I feel that a man with uncured syphilis has contracted a physical debt which he must inevitably pay; and I ask you, Can he marry honestly? Suppose he gets children, and then falls sick and then can not work to support his family. Dare a man risk this? No! If he marries, uncured, it is an immoral act, an act of injustice to the community. Alas! such things are not uncommon. I know a case of a man who, after marrying and getting children, lost his nose by ulceration, and became an object of disgust to all who knew him, unfitted for his former associations, and branded with the consequences of an almost forgotten disease. Another man had a late affection of his eyes, and lost them both, by which his means of support were gone, and his family became dependent upon the city. Another, a doctor, impotent from paraplegia, came into the same condition. Another, after a few months of married life, died, leaving his young wife *enciente*. Another, had carnial exostoses, a cerebral affection, and epilepsy; lost his reason and his money, leaving his wife and children in poverty.

In view of all this, our bounden duty is to declare to a questioner what may be the consequences of a marriage after the contraction of syphilis. Where there is serious danger of such results as I have named, no man can, no man has the moral right to take a wife and beget children.

But this rule must be most carefully applied; for, as I have said already, we may not invariably refuse our consent to marriage after syphilis has been contracted.

Now, however, we approach grave difficulties, and are confronted with the usual embarrassment of proceeding from theory to practice.

When and under what conditions, then, is marriage morally permissible to one who has contracted syphilis?

The conditions that are indispensable I believe to be the following:

1st. *Absence of actual manifestations.*
2d. *Advanced age of the disease.*
3d. *A period of immunity since the last outbreak.*
4th. *A non-menacing character of the disease.*
5th. *Adequate specific treatment.*

It might be thought somewhat superfluous to say that *no one should marry who has actual manifestations* of this disease—that these constitute an absolutely insurmountable barrier; and yet I have seen men bold enough to ask the question, and have seen two cases of marriage with a chancre at the time. Some men act

thus from ignorance; some cynically brave all the danger; some, from weakness, fear of exposure and scandal, allow the consummation of a union into which they should by no means enter; but for none is there a reason which can justify them.

The second condition, *advanced age of the disease*, depends upon the fact that the fresher, the younger the attack of syphilis, the greater is the liability to accident from it. Thus the presence of secondary manifestations constitutes a very formidable danger; and even when they have disappeared they are apt to return. There are certain situations, also, as about the mouth and genitals, where they may be present as simple erosions and deceive a most careful observer. This fact of the decreasing danger as time goes on is shown in cases where at first a healthy mother has aborted, and later, without her husband's being treated, she has ceased to abort and given birth to healthy children. I knew a mason who, when he married, had a syphilitic roseola. His wife was infected, with the following issue of her pregnancies: in the first she aborted at four months, in the second at five, the third child died before term, the fourth and fifth were born syphilitic, and the sixth, seventh and eighth showed no sign of the disease.

The precise time when a previously syphilitic person may marry is hard to determine, and must be considered with due estimation of the sort of treatment that has been employed and its effect; but I may say that I think the minimum time since infection should be three or four years. Before the lapse of three years I will not permit it, as I have seen the saddest results follow such a course. Later the probabilities are better, and, with the exercise of proper care, the dangers are not great.

The third condition I mentioned was *a certain period of immunity since the last outbreak*. By this I mean an *absolute* immunity for a certain length of time. This marks the subsidence of the acute stage, called secondary, and shows the effect of treatment as well as the character of the disease in each case. If these are such as to encourage you, I think, while no invariable period can be set down, that we may consider eighteen months as a minimum, under which I would not myself sanction marriage.

The fourth condition is a *non-menacing character of the disease*. This is a most important consideration. When syphilis yields rapidly to treatment it is a favorable sign; and, conversely, if the form is grave and less tractable, it is more dangerous, and much greater caution must be used. To enumerate some of the characteristics which are grave, I might mention multiformity, multiplicity, or intensity of lesions, a seemingly deep impression upon the general health and stubbornness against treatment. Besides this, there are certain organs, the implication of which is very serious, as the brain and spinal cord, lesions of these being extremely dangerous and apt to recur. I should require a very

long period of immunity in such a case. I remember a young man whose arm had been partially paralyzed, who married in spite of my warning, and in ten days had an attack of paraplegia, followed by insanity and speedy death in an asylum.

Finally, an indispensable condition is *adequate specific treatment.* The individual who has contracted syphilis is dangerous, and must be treated. This is the best protection to the community, and needs no argument to support it. Syphilis properly treated rarely progresses to the tertiary stage, while that which is not properly treated almost always does. Treatment diminishes its contagiousness and hereditary transmissibility. Many cases could be cited to illustrate this, where proper treatment of a husband has put a stop to his wife's aborting, and where abortions consequent upon syphilis of both husband and wife have ceased and healthy children been born. It is especially important that at the time of procreation both husband and wife should be under treatment. I know a case where a syphilitic woman, who had aborted seven times, went under treatment, and gave birth in the eighth pregnancy to a healthy child, and then another in the ninth. She now omitted treatment, and her tenth pregnancy resulted in a syphilitic child that died in six months. Returning to treatment, she became pregnant again and had a healthy child.

Adequate treatment, therefore, is a capital and essential condition to marriage of a syphilitic.

I have thus, gentleman, laid down what I think are the conditions upon which one who has contracted syphilis may marry. It is not an invariable programme, but simply the result of my personal observation, and what may, indeed, be modified in the light of subsequent information. With these considerations in my mind, when the question we have been studying is presented to me, I feel sometimes quite sure of my ground, and speak out positively and at once. At other times I do what you will doubtless have to do, wait and observe; in doing which, I likewise explain the case to my patient, and impress him with the importance of being as careful as possible in a matter so grave, and which is at best a calculation of probabilities. On one side there is danger which can not be overestimated, on the other comparative health, safety and happiness.

If, then, we deal thus honestly and conscientiously with those who seek our advice in this serious matter, with due caution against the ills which may result from an unwise permission, and appreciation of the unhappiness which may follow an unnecessary refusal, we shall execute an office salutary to the state and of the greatest benefit to our fellow-men.—*Cin. Med. News.*

THOS. K.

PHYSIOLOGY.

FUNCTIONS OF THE ORGANS OF THE FŒTUS IN UTERO.—Dr. W. J. Smyley reviews what is known upon this subject. Anatomists have studied and explained the development of the various organs of the fœtus; but physiologists have been slow in elucidating the functions of these organs. Indeed, the subject was of but little interest so long as the ovum was regarded as a new growth within the mother, bearing to her much the same relation as an organ of her body. As soon, however, as it was shown that the fœtus possessed an independent circulatory and respiratory apparatus, it became evident that it possessed a physiological existence, "resembling rather that of a parasite living within, and drawing nourishment from the body of its host, but possessing at the same time an independent power of assimilation, secretion, and heat formation." To show the physiological relation between the fœtus and the mother, would be to explain the nature of some contagious and hereditary diseases. Professor Gusserow, of Strasburg, has recently made some valuable experiments upon this subject. It was proven some years ago that medicinal and other foreign substances do pass from the mother to the fœtus. The experiments were first made upon the lower animals and then upon pregnant women. It was proven that if therapeutic doses of iodide of potassium were given to a pregnant woman for fourteen days preceding her confinement, and the liquor amnii was collected, and the child's urine drawn through a catheter as soon after birth as possible, the iodide could be detected in both the urine and the liquor amnii. The variable quantities of the iodide found in the liquor amnii in different experiments seemed to cast some light upon the micturition of the fœtus. There can now be no doubt that the fœtus does not secrete urine, and that the urine is passed into the liquor amnii. In the great majority of examinations of this fluid, urea has been discovered as a constituent. However, it is evident that the urinary matter passed into the liquor amnii does not remain there; for if it did, this fluid, towards the end of pregnancy, would have the same composition as the urine. The urea is probably decomposod and absorbed into the blood of the mother. This theory is supported by the fact that though the reaction of the liquor amnii is generally slightly alkaline, it is sometimes very strongly alkaline from ammonia; the alkali undoubtedly arising from the decomposition of the urea. When much urea is found in the liquor amnii, the fœtus has micturated lately, but when little or no urea is found, it has been decomposed into ammonia and absorbed into the blood of the mother. From this, it would appear that the urine does not flow from the fœtus continually, but collects in the bladder until a

sufficient irritation is conveyed to the spinal cord to cause reflex contraction of the walls of the bladder. The source of the liquor amnii has long been a question under dispute. This fluid was supposed by some to be a fœtal production, and by others, to be derived solely from the mother. Scheerer thought that it was a secretion from the integument during the early months of pregnancy, but this is negatived by the rapid increase during the latter months of gestation. Gusserow says: "If the liquor amnii were merely a transudation from the fœtal or maternal vessels, it should bear the characters of such a transudation; it should, therefore, contain, fibrinogenous materials. I have never, however, succeeded in producing coagulation, by the addition of blood to the amniotic fluid, either of the human female or that of the lower animals; nor have I ever observed spontaneous coagulation, provided the fluid were taken quite pure. That it is almost free from white corpuscles, is almost in accordance with this. Its poverty in albumen and white corpuscles, together with its incoagulability, would, of themselves, lay to one side the idea that it is the result of a mechanical œdema, even if it were not distinctly contradicted by the total absence of red cells." We may conclude that though the source of the liquor amnii at an early period is obscure, during the second half, at least, of pregnancy, it is derived from the kidneys of the fœtus. Bunge and Schmiedeberg have proven that the well-known conversion of benzoic into hippuric acid in the body takes place in the kidneys only. Gusserow made use of this point in some farther experiments. Evidently if hippuric acid could be found in considerable amount in the urine of the fœtus or in the liquor amnii after the demonstration of benzoic acid to the mother, the change must have taken place in the kidneys of the fœtus. Consequently, benzoic acid, in the form of benzoate of soda, was administered to several pregnant women. The liquor amnii was drawn off by means of a trocar and canula so as to avoid admixture with the mother's urine, and the child's urine was drawn off with a catheter as soon after birth as possible—"at all events before it had taken the mother's breast." The following case will illustrate the method: "A patient consumed one gramme of the benzoate of soda in the course of three hours; one hour and three-quaters after the last dose, the waters were removed. They contained no acid; but a considerable quantity of hippuric acid was found in the urine of the child." In other cases, hippuric acid was found only in the liquor amnii, and in still others in both the urine and the liquor amnii. No benzoic acid was in any case found in the latter, consequently, we must conclude that the benzoic acid is transferred from the blood of the mother to that of the fœtus and then is changed in the kidneys of the latter into hippuric acid. The passage of material from the embryo to the mother was also investigated experimentally. The abdomen of

a pregnant cat was opened, and the uterus was seized with a small pair of forceps and a small hole torn through it. The membranes were not ruptured, and a solution of strychnia was injected into the fœtus. The escape of the injected strychnia was prevented by the use of a pair of bull-dog forceps. In those cases in which the fœtus remained alive for any length of time, the mother invariably had spasms, usually in about twenty minutes after the injection of the fœtus.—*Dub. Jour. of Med. Science. The Physician and Surgeon.*

EPIGLOTTIS—ITS FUNCTION IN DEGLUTITION AND PHONATION.—Dr. Walton (*Journal of Physiology*, Vol. 1), gives a capital paper on the functions of the epiglottis. Experiments on animals and man, with extensive literary researches, form the basis for the following conclusions: As regards deglutition, (1.) The epiglottis can be removed from dogs and cats without interfering with deglutition. (2.) The cases commonly quoted to prove the connection between the epiglottis and the deglutition of fluids prove nothing; not a single case having been found, after a careful search through the reports of laryngoscopic observations, in which the lesion is shown to be limited to the epiglottis where liquids are reported as causing a cough on deglutition. (3.) There are many cases in which loss of the epiglottis has not been followed by difficulty in swallowing liquids. (4.) In failure of the glottis to close, the epiglottis, if uninjured, is able to protect the larynx; but in the normal condition the presence of the epiglottis is not essential to perfect deglutition. It is, therefore, only an additional safeguard.

Regarding phonation: (1.) The epiglottis produces change in pitch, acting as a sounding plate by means of its free edges, and as a tuner in modifying the pitch as it presses back over the glottis or the opposite. (2.) The epiglottis produces *changes in quality*. (a.) If a brilliant tone be intended, the free edge only of the epiglottis is turned up. (b.) If a sombre tone be intended, the epiglottis followed by the tongue pushes back over the glottis, so as to deaden the sound by obstructing it instead of reinforcing it, as it does in the brilliant tone. (c.) If a veiled tone be intended, the epiglottis flattens towards the tongue, so that its whole posterior surface is in view. The same positions are taken by the epiglottis for each of the vowel sounds. (3.) The epiglottis produces *changes in intensity*, acting like a valve at the top of an organ pipe, if the note of the reed is intended to be swelled. In acting so, it must, of course, be drawn over the larynx, the ventricular being simultaneously drawn.—*Detroit Lancet.*

HORSE-SHOE KIDNEY.—Dr. Finny said: At the first meeting of the Society it was my privilege to submit an example of congenital displacement of the right kidney. Now I have to show another anomalous condition of the kidneys, consisting of the

union or fusion of the two lower portions of the kidneys, forming what is called horse shoe kidney. The example represents these features remarkably well. The specimen was taken from the body of a male subject in the adjoining dissecting room; and the situation of the organ was as follows: The upper ends of the kidneys are both a little lower than they ought to be, but they were covered by the supra-renal bodies. The lower portions of the kidneys converged, and met across the abdominal aorta, the lower end of the inner being half an inch above its bifurcation. The inferior mesenteric artery crossed the junction of the kidneys. The fold of the peritoneum was deflected from the left side of the mesentery and passed near the psoas magnus muscle over the kidneys. Under it, or between it and the kidneys, lay the left spermatic vessels. The arterial supply of the kidney was derived both from the normal sources and from additional sources. The upper portions of the united kidneys received the two renal arteries respectively, while the lower portion of them received two other vessels, one of which was derived from the abdominal aorta, three quarters or half an inch below the inferior mesenteric, while the others, which passed to the under surface of the union of the two kidneys, was derived from the left common iliac artery. As is common in such cases, the ureters pass in front of the kidneys. The other remarkable points are—that the hilum of each kidney seems extremely large, especially in the right half of the union, and that the pelvis of the left kidney is fully three and a half inches long. The venous distribution seems to be quite normal, the left vein, though at a lower level than usual, crossing the abdominal aorta and joining the vena cava. The left spermatic vein passes over the kidneys and enters the left renal vein.—*Dub. Path. Soc. in Dub. Med. Jour.*

ALIMENTATION IN HEALTH AND DISEASE.—The true basis of alimentation is not beef, but wheat; and in a natural and rational system of dietetics, wheat and the allied seed foods, including beans, lentils, peas, and rice, must take the place now usurped by the allied animal foods, including butter, cheese, eggs and milk.

Next to these should come the appetizing juicy fruits, and then the plant foods, which are neither seeds nor fruits, and which are generally styled vegetables. After these the various animal foods, and last of all the stimulating spices, beverages, and other food adjuncts, which unfortunately ranks so high in our present ill-advised and ill-proportioned dietary.

The fowl or the joint occupies the post of honor, while the loaf is thrust to one side and too often forgotten, or overwhelmed in the crowd of seasoned dishes, or supplanted by cakes and pastries, from which the glorious vitality of the wheat has been successfully extracted. In fact, the miller and the baker between them have so contrived to emasculate the king of grains that we

need not wonder that bread has been dethroned by beef, and even among the poor, by demoralized, ignoble pork and beer.

The true life-giving, mental, moral, and physical force-producing bread is neither more nor less than sound, ripe wheat when deprived of its thin outer silicious, innutritious husk, coarsely ground and mixed simply with water, and subjected to just that degree of kneading and baking that will suffice to prepare it for mastication, insalivation and the subsequent action of the gastric juice.—*Atlanta Med. and Sur. Jour.*

SECRETION OF URINE.—Quincke finds, contrary to a natural supposition, that while there is a diminished secretion of urine during sleep, the reverse takes place immediately after waking, and that for some time afterwards more urine is secreted than during any other similar period of the twenty-four hours. Quincke is unable to furnish a reason for this peculiar phenomenon. Is it not closely related to the period of taking liquid, the amount taken, and the effect of exercise in dressing after the repose of the night?—*Hosp. Gaz.* I. N. L.

SURGERY.

EXPERIMENT ON MALIGNANT PUSTULE.—At the meeting of the Academy of Medicine, held on the 29th of October last, M. Colin described a series of experiments made with the view of ascertaining the means of neutralizing different forms of virus in the organism. Forty rabbits were put under observation and were inoculated with the virus of the "pustule maligne." The inoculation was done at the tip of the ear, which was cut off ten minutes after the operation. In every case the disease developed itself, and the virus did not seem to have lost any of its energy throughout the series of experiments. In the case of seven rabbits tincture of iodine was the substance used to neutralize, associated with a strong portion of iodide of potassium; in fourteen others carbolic acid was used; in four sulphuric acid was the agent; in five more hyposulphite of soda; in three borate of sodium; in two sulphate of iron; and, finally, in the remaining five cases sulphate of quinine was injected. Progressive doses of from twelve to twenty-three milligrammes of iodine were injected into the veins of the first seven rabbits for every kilogramme of their weight, but they all died within twenty-eight hours from the time of the inoculation. Fourteen rabbits were injected with 230 milligrammes of carbolic acid for every kilogramme of their weight, but the one that resisted the longest died forty-two hours after the time of inoculation. In the remaining trials with the other substances above named, the results

were approximately the same. M. Davaine had found that the substances above named were capable of neutralizing the virus in a watch-glass, but the experiments of M. Colin conclusively prove that their action is not the same in the organism. M. Colin expressed his regret at not having obtained more useful results, but still hoped to be able eventually to find some counter-agent for this terrible poison. In each case the characteristic alterations of the disease existed, such as swelling of the spleen and the presence of bacteria in the blood.—*Med. and Surg. Rep.*

H. H. M.

DISEASES OF THE NERVOUS SYSTEM.

CYSTICERCI IN THE BRAIN DIAGNOSTICATED DURING LIFE.—A case of this character is recorded by Dr. Joseph Pollak in the *Wiener Med. Presse*, No. 47, 1878. The patient was a boy eight years of age. Exmination of the pulse, temperature, thoracic and abdominal viscera failed to reveal anything abnormal. The boy complained of excruciating headache, and his piercing cries were loud enough to be heard at quite a distance. Very shortly after his first visit the attendant was recalled, when he found the pupils dilated, the urine and fæces passed involuntarily, the abdomen distended; headache was still severe. Every few hours, attacks of an epileptiform nature recurred, while in the intervals there was a remarkable absence of all these symptoms. At one of his visits just after prescribing a cathartic, he had occasion to examine the stools, where he found portions of a tænia. The presence of this, in connection with the other symptoms, at once aroused the suspicion that he had here a case of entozoal origin. At his next visit he found the patient comatose, and on examination of his puplis found, to his surprise, what proved on a closer examination, to be a cysticercus in the anterior chamber. He at once pronounced the case one of cysticercus of the brain. The patient died shortly afterward, and the diagnosis was fully verified.—*Atlanta Med. and Surg Jour.*

VULPIAN ON THE NERVES INFLUENCING THE SECRETION OF SWEAT.—M. Vulpian communicated the results of his experiments upon this subject, conducted upon cats, to the Academie des Sciences, June 10, 1878. According to Nawrocki, the sudoriparous nerve-fibers for the anterior limbs run in the upper part of the thoracic portion of the sympathetic. This statement has been confirmed by the experiments of Luchsinger, and still further by those of M. Vulpian, who finds, however, that a feeble secretion of sweat can still be produced after section of the thoracic trunk. He also notices that the sudoriparous nerve-fibers which arise directly from the spinal cord are more numerous in the sciatic than in the brachial nerves.—*Lon. Med. Rec.*

PAULIER ON A NEW METHOD OF PREPARING THE SPINAL CORD —M. Armand B. Paulier (*Le Progrès Méd.* Oct. 26th) presented to the Académie de Médecine the spinal cords of certain animals, prepared by a new method which he calls *chemical dissection*. It consists in macerating the cord in a solution of 2 per cent bichromate of potash, and 4 per cent sulphate of copper; after eight or ten days the cord, stained a more or less greenish yellow, is placed for two or three days in a solution of 1 per cent of sulphate or hydrochloric acid. Generally, in two or three days the decolorization is complete, but hydrochloric acid imparts a soapy consistency to the cord, which disappears after maceration for twelve hours in a 1 per cent solution of chloral; at the end of these procedures the cord is tinged bluish, it is firm, resistant, sufficiently elastic to be handled with ease. It may be divided into parts in its whole length, or submitted to other reagents. In case the separation of the parts is difficult, it should be macerated for twelve hours in a mixture of equal parts of glycerine and water for some hours; and finally it is sufficient to remove all trace of discoloring, to leave the cord in pure water till the following day. This procedure dose not succeed so well with human cords as with those of animals.—*Lon. Med. Rec.*

EPULIS.—Mr. F. T. Porter said: This is a specimen of an epulis which I removed yesterday, and it presents a few points of interest, insomuch as it was connected with the upper front teeth, it being needless to observe that such growths are generally associated with the back teeth. It was of fourteen years' growth, the patient being now sixty years of age. I removed it by cutting down as far as possible without taking away any of the bone, for reasons I shall presently explain. This is a rough model [produced] of the epulis after the removal of the left upper central incisor, which was displaced by the growth. After the operation I found difficulty in arresting the hemorrhage from a small artery which I could not reach. I was enabled, however, to check the bleeding by the application of a small instrument (used by dentists) affording lateral pressure. I have no doubt that this instrument could be used with some advantage in similar operations. I now invite attention to the propriety of removing the bone in some such cases. It has been stated that epulis can not be cured without the removal of bone, but that opinion is not universally adopted. In this case I deemed it prudent to pursue a more conservative line of treatment, which I considered to be more consonant with the patient's age and weak condition. In addition, it appeared to me that the amount of force necessary to take away the bony attachment of such a large epulis might (especially in old persons), in cases in which the growth is connected with the upper front teeth, endanger the floor of the nose. I would not, however, say that the removal of bone would not eventually prove the more satisfactory course to pursue when circumstances permit.—*Path. Soc. Dub. Med. Jour.* C. W. S.

OBSTETRICS.

THE CÆSAREAN OPERATION IN LOUISIANA.—Dr. Robert P Harris, of Philadelphia, publishes in the *New Orleans Med. and Surg. Journal* of June, 1879, the record of gastro-hysterotomy for the State of Louisiana, which is entitled to be considered the *banner* State, so far as priority of performance and number of operations are concerned. Dr. Harris, who has with untiring energy done so much to work up the history of the Cæsarean section in the United States, finds that there have been nineteen such operations in Louisiana. The first of the series, though well authenticated, cannot be fixed as to date; suffice it to say, was performed by Dr. Francis Prevost during the early portion of the present century. The same physician operated in all four times, twice on the same subject—mother and child surviving in each instance. Of the nineteen cases, nine had deformed pelvis, and four pelvic exostosis. Fourteen women recovered and five died; all the subjects were black but one. In six instances, the operation was, as far as can be ascertained, performed early, resulting in the recovery of all the women, and saving four children, five having been alive on extraction, thus showing the advantages of promptness. In only two of the nineteen cases is the death of the child attributed to craniotomy. In ten cases where the duration of labor was prolonged, three women died, and all the children perished; eight of the latter died during the protracted labor. The whole of the operations saved $73\frac{1}{19}$ per cent of the women, and $42\frac{2}{19}$ per cent of the children. In three instances, the same women were operated upon twice, and all recovered. In these latter cases, five of the children were extracted alive, and three lived.

Taking the large number, and all the circumstances surrounding these cases into consideration, and we find no such favorable showing in any other State, unless it be Ohio, but here the number of cases reported are comparatively few. One of the cases reported by Dr. Harris from Louisiana, is truly remarkable in the fact that the operation was performed by an "old drunken plantation midwife," yet both mother and child survived. The brilliant showing which Louisiana makes in this operation, reflects credit on the skill of her country practitioners, though it is scarcely to be expected that her proud record can be maintained, when we reflect that the blacks (which constitute almost exclusively the subjects,) are now far less favorably situated in regard to systematic, intelligent nursing and hygienic particulars, than when in a state of slavery; neither can it be expected that they will be able to command the same surgical skill as under the old regime.

TREATMENT OF SEVERE VOMITING IN PREGNANCY.—Edward Copeman, M. D., F. R. C. P., (*British Medical Journal*, Sept. 28th, 1878,) has added five more to his already published cases of the successful treatment of vomiting in pregnancy by dilatation of the os uteri. The doctor says that up to the present time no failure has come to his knowledge when this treatment has been carried out fully. The os must be dilated so as to admit the finger easily.—*Detroit Lanet.*

WHEN SHALL THE LYING-IN WOMAN GET UP?—O. Küstner took occasion in the obstetrical clinic at Halle to test the value of Goodell's suggestion relative to the getting up period after labor, in the first days after delivery. He experimented with sixteen women whom he allowed to get up whenever they felt like it. Four got up on the first day, two on the second, three on the third, and seven on the fourth day. They remained up according to pleasure. Evacuation of the bowels was essentially better, the secretion of urine was not lessened, and of sweat but little lessened; the appetite was good. The loss of weight in these cases was not abnormal, although the lochia were more free. Involution of the uterus took place *en regle*. But as three of the cases showed fever, which the author thought due to maltreatment by exercise of the physiological wounds of the genital organs, and as this danger is always imminent, Küstner advises that lying-in women remain in bed about one week. In private practice the physician will be chiefly guided by the condition of the discharges, and will demand that patients remain in bed until all bloody discharges, or coloration of discharge, shall have ceased. —*Berlin Klin. Wochenschrift. The Am. Med. Bi-Weekly.*

WARM FOMENTATIONS TO THE HEAD IN CASES OF UTERINE HEMORRAGE.—Dr. Koehler (*Allg. Med. Central Zeitung*, No. 1, 1878) states that he has for the last seven years, in cases of uterine hemorrhage, applied warm fomentations to the head to prevent anæmia of the brain, and also to the heart. Hot sand bags are also efficient, and the patients often will bear sand which is so hot that it can scarcely be touched with the hand. As soon as the fomentations or bag has been applied, conciousness is restored; the pulse grows stronger; the patient herself states that she feels better, that the ringing in the ears has ceased, and that she likes the appliance. As soon as it becomes cooler, she wishes it to be renewed. Dr. Koehler has, he says, saved patients even in most dangerous cases of hemorrhage by this proceeding, by which the physician never loses time, as the fomentation may be watched and renewed by any one. This method has been found equally efficient in anæmia caused by epistaxis, hemorrhages produced by wounds, etc.—*Am. Med. Bi-Weekly.*

A CASE of persistent menstruation through nine months of pregnancy is reported in the *Gazette des Hôpitaux*. W. C.

Correspondence.

A NEW THEORY AS TO THE FORCES THAT DETERMINE THE CIRCULATION OF THE BLOOD. By J. C. DARBY, M. D., of Mt. Sterling, Kentucky.

OLYMPIAN SPRINGS, KENTUCKY,
August 13, 1878.

TO PROF. DANIEL VAUGHAN, M. D., Cincinnati, O.:

DEAR SIR—I have conceived a new theory as to the forces that determine the circulation of the blood. I send it to you.

Positive and negative electricity are two forces equally efficient. Bodies positively electrified repel each other, as do bodies negatively electrified; but bodies positively electrified attract those which are negatively electrified, and vice versa. I assume that in the animal body the left side of the heart and the arteries are positively electrified and that the right side of the heart and the veins are negatively electrified. I assume also that the arterial blood is positively electrified and that the venous blood is negatively electrified.

I assume also that the arterial blood is kept in a state of positive electricity by its continual union with the oxygen of the atmosphere as the blood passes through the lungs.

As I have to begin at some one point in the round of the circulation, I start from the right side of the heart.

The venous blood in the right ventricle being in a state of negative electricity, and the right ventricle itself being in the same electrical condition, they mutually repel each other. The pulmonary artery being positively electrified, attracts the blood in the right ventricle, which is negatively electrified. This constant repulsion between the venous blood and the walls of the right ventricle and the attraction between the blood and the pulmonary artery causes a continual stream of blood into the lungs, and explains why an artery conveys venous blood into the lungs. When this blood gets into the lungs the electrical condition is changed, and it becomes positively electrified by its union with the oxygen of the atmosphere. It is then in an electrical state, to be attracted by the pulmonary veins which, like all other veins, are negatively electrified. This explains why arterial blood is conveyed to the left side of the heart by veins and not by arteries. When this arterial blood in a state of positive electricity enters the left side of the heart it finds that organ also in a state of positive electricity.

In perfect health both the arterial bood and the left side of the heart are positively electrified to a high degree, and the repulsion between them is sufficient to propel the blood to every part of the body; the arteries being also positively electrified, continue this repulsion to their utmost extremities. As the blood passes from the arteries into the capillary system it parts with its oxygen and becomes negatively electrified, the reverse of what took place in the lungs. The blood thus changed in its electrical condition is forced into the veins, which are in the same electrical state that it, the blood, is. This is the only point in my theory which is not entirely satisfactory to me; but after the blood enters the veins the propelling force is clearly apparent—that is, the venous blood and the veins being in the same electrical condition, repel each other, and thus the blood is forced to the right side of the heart.

The activity and healthfulness of the circulation depend very much upon the purity and quantity of the oxygen the blood receives as it passes through the lungs. I believe that it is admitted that perfectly healthy atmospheric air contains a certain amount of ozone or electrified oxygen. Atmospheric air, which is not perfectly healthful, contains a less amount of ozone. The regularity and healthfulness, then, of the circulation, depend upon the purity of the atmosphere. Within an animal body, say man, I assume that the ganglia of the sympathetic nervous system are so many batteries generating electricity, whether positive or negative has yet to be determined; the spinal column and the medulla oblongata are batteries also generating either positive or negative electricity, I cannot say which; but I assume that the sympathetic nerves or their ganglia generate one kind of electricity and the spinal column and the medulla oblongata generate the other kind. What part the cerebellum plays in this electrical apparatus has also yet to be determined. I do not suppose that the brain proper or cerebrum generates either kind of electricity, but that it receives positive and negative electrical currents, as does the heart, the liver, or any other organ. If negative electricity is generated by the ganglia of the sympathetic nerves, then that system presides over the veins and the right side of the heart; if the spinal column and medulla oblongata generate positive electricity, then that system presides over the arteries and the left side of the heart. Now my object in sending this to you is to have you test the truth of my theory by experiment.

Your thorough knowledge of everything connected with electrical forces and of all apparatus used in the generation of electricity will enable you, I think, to construct delicate bodies and put them into positive and negative electrical states, each one being separate. Then apply one of these bodies positively electrified to an exposed artery, and see if they will not repel each other; and then apply the same to an exposed vein, and see

if they will not attract each other; and then repeat the experiment with a body negatively electrified. I would also want these delicately electrified bodies to be applied to a flowing current of arterial blood, which is positive, and to a flowing current of venous blood, which is negative. I have not the knowledge of electrical forces and of the apparatus used in their generation to determine these questions myself, and if I had, my deficient eyesight would not permit me to do it. I sincerely hope you may be willing to make an effort to test the truth of my theory, and if you do, I know you will soon determine whether it is the discovery of a great physiological truth, or merely the dreamings of my imagination. If you can get access to a slaughter-house you can readily make experiments on exposed arteries and veins, and also on flowing currents of venous and arterial blood.

Very truly, your friend, J. C. DARBY.

CINCINNATI, O., October 13th, 1878.

To J. C. DARBY, M. D., Mt. Sterling, Ky.:

DEAR SIR:—Your letter of August 3rd must have been delayed * * * I have not been able to give it as much consideration as it deserves, owing to ill health. In ascribing the circulation of the blood, partly or wholly, to the influence of electricity, your doctrine is somewhat analogous to one which I advanced in 1848 in regard to the movement of the sap in trees. It has been ascertained that the sap ascends by the wood of a tree to the leaves, and then descends by the bark and the cambium which lies between the bark and the wood. In a pamphlet entitled "Vegetation Traced to Natural Causes" I have shown that a circulation of galvanic currents is precisely the same course which the sap takes would result from the action of air and water at the roots, and the action of light on the branches. To these galvanic currents I ascribed the movement and the elaboration of the sap, and subsequently found that indications of electric action was found by Becquerel, Bud and others. The pamphlet alluded to was published in 1848, and was received very favorably by Dr. Yandell in the *Western Journal of Medicine and Surgery* for February, 1849. Although in a subsequent article I expressed some opinion of the probable part which electricity may act in the circulation of the blood, I did not pursue my inquiry far in that direction. Dr. J. W. Draper, however, about the same time expressed the same opinion that the action of heat is not capable of drawing the blood through the capillaries. The part which electricity plays in human organization was soon afterwards brought more prominently before the public by Alfred Smee, in his lectures on "Electro-Biology or the Voltaic Mechanism of Man"; his researches were mainly experimental and they were afterwards controverted by his opponents on the grounds that the living rabbits which he employed, had their vital functions deranged by mutilation, and by the insertion of his needles for testing the galvanic currents, and it was accordingly contended

that his results could not be considered normal. I have never seen Smee's reply to his critics, nor am I aware that he made any, but since his death his views do not seem to have received much attention. His doctrines were first announced in a lecture before the Royal Institution, and I think they have been published in the *London Lancet* for 1850, etc.

In bringing your doctrines before the medical profession, it will be well to consider that the idea of the action of the heart is so deeply rooted in scientific minds that it can not be easily eradicated. It may, on that account, be necessary to regard electricity as playing only a subordinate part, unless it can be shown that it produces the rythmical movements of the heart. In taking the last view there are some difficulties which it is not easy to remove. It is also necessary to consider that in experiments with statical or frictional electricity very perfect insulation is necessary, and this does not exist in the organs of the human body. It was such considerations that induced me to regard the electricity concerned in vegetation as of a voltaic or dynamic character and not analogous to that of the Leyden jar or the electrical machines. Your theory might, perhaps, admit of a similar modification. No insulation is necessary for the successful operation of a galvanic battery. I would like much to be able to aid you as much as possible by making experiments to support your doctrine, but in my present feeble health it would be impossible for me to do anything at the slaughter-houses of this city. * * * Besides this it requires the most delicate and expensive electrical apparatus to detect the very feeble electric currents circulating along the tissues of plants or any part of the animal body. * * * The idea of the analogy of the human frame and a galvanic battery is said to have originated with Napoleon Bonaparte about the beginning of this century on seeing one of the first batteries exhibited before Academie des Sciences at Paris. He pronounced it a resemblance of life.

Your sincere friend,

DANIEL VAUGHAN.

No. 43 WEST THIRTY-SECOND STREET,
NEW YORK, June 19TH, 1879.

EDITOR JOURNAL:—I am afraid that I am asking for more space in your journal than may prove profitable or entertaining to your readers. If you think so, please return this manuscript.

Dr. Borck, in his communication to your journal dated May 30th, 1879, says, addressing the editor of the *Hospital Gazette* (New York): "Will he please read this short extract found under the caption of "News Items, Medical Facts," etc., in the American reprint of the *London Lancet* for December, 1874:

'ONE HUNDRED DOLLARS REWARD.—Dr. Frank H. Hamilton offers one hundred dollars, says the *Cincinnati Clinic*, to any sur-

geon who will produce a case of fracture of the thigh in which no shortening has taken place. The diagnosis must have been confirmed by at least one medical man besides the surgeon who had charge of the case soon after the accident. The final measurement to be made by Dr. Hamilton himself, in company with two other surgeons. The patient must be above twenty, and should not have experienced paralysis or atrophy of the limb.'

"It may be that the *Lancet*," continues Dr. Borck, "has misquoted Dr. Hamilton, or that he may have been wrongly reported."

In my published writings I had already reported cases of fracture of the thigh treated by myself without shortening, under precisely those conditions required in the above proposition, and of course I never made any such offer of "reward."

The following, copied from the *Detroit Review of Medicine*, for July, 1874, pp. 430–431, will probably explain the source of the error into which both the *London Lancet* (American reprint) and the *Cincinnati Clinic* seem to have fallen:

"SYRACUSE, N. Y., July 9, 1874.

MY DEAR DOCTOR:—While spending a few days with my friends in this place, Dr. Didama handed me a copy of your journal for July, in which I find a report of the proceedings of the American Medical Association, lately convened at Detroit, which contains the following statement:

'Dr. Sayre said he knew his measurements were correct; that Dr. Frank Hamilton had made the measurements, and that he was a man so violently opposed to the theory that in his published writings he had denied the possibility of any oblique fracture being cured without shortening. For this reason he (Dr. Sayre) had asked him to measure the patients. He said if seven successive cases would be presented, he would agree to give up his opposition to the theory. He found the cases and surrendered.'

It will be understood that reference is here made to fractures of the femur.

Permit me to reply. *First.* I am not quoted correctly as to what I have said of shortening in the case of oblique fractures of the thigh. A reference to my published writings will show that Dr. Sayre has fallen into a slight error upon this point. *Second.* I have never seen 'seven successive cases' of perfect femurs after fracture. I do not think I have seen two, certainly not three.

The August number of the *New York Journal of Medicine* will contain a full statement of my experience in reference to cases which have lately come under my observation.

For the purpose of encouraging efforts in this direction, and for the advancement of surgical science, I offer a prize of one hundred dollars for seven examples of fractures of the shaft of the femur, (I will not say "successive"), occurring in persons over twenty years of age, who were not at the time of the injury

suffering from paralysis or atrophy of the limbs, which have been treated by the surgeon presenting the cases, and which have united without shortening. The diagnosis of the fracture to be verified by at least one other surgeon who was present at or near the time of the accident, and who assisted in making the diagnosis. The final measurements to be made by myself and two other surgeons; the latter to be chosen by the person presenting the case and myself. The opinions of the majority shall decide the case.

I would be thankful if other journals would repeat this offer in my name.

With sentiments of esteem, I remain, yours truly,

FRANK H. HAMILTON.

To LEARTUS CONNOR, M. D.

While I have no doubt that these and many other misquotations to which my writings on the subject of shortening the fractured limb have been subjected are accidental and unintentional, yet I think it has sometimes been done from a bad motive, since it has been done under circumstances where a misunderstanding or a mistake was impossible. With regard to Dr. Borck's misunderstandings and misquotations, neither of which does he seem to think were very material, I am happy to accept of his statement that they were unintentional.

Yours truly, FRANK H. HAMILTON."

IS PHTHISIS CONTAGIOUS?

EDITOR JOURNAL:—The question of the contagiousness of phthisis is exciting general attention, and the affirmative has many strong advocates. The clinical opportunities of any one physician are insufficient to determine this matter, but the aggregate experience of a number cannot but be of value. That such experience may be made available, I would be glad to receive answers to the following interrogations from such of your readers as may be interested in this subject:

1st. Do you believe that phthisis is in any sense or degree contagious?

2d. Upon what practical evidence do you found your belief?

3d. Please state the principal features of cases you have observed which have direct bearing upon this theory.

This request is to each one personally, and any evidence furnished will be gladly accredited. WM. PORTER, M. D.

500 N. 14th street, St. Louis.

Editorial Notes.

TO ADVERTISERS.

The value of a medical journal as an advertising medium depends on the extent of its circulation, and the character of its readers.

The number of the readers of the JOURNAL is now among the *thousands*. While the great majority of its subscribers are residents of the West and Southwest, yet it has readers in every State in the Union, and in the Canadas, besides not a few in nearly every nation in Europe. This is the result of no extraordinary effort on our part; the JOURNAL needs but to be seen to be appreciated. It is the *Pioneer Medical Monthly of the country*, and with regard to age, it is the *third*. It has more subscribers who have read its pages for ten, twenty, thirty or more years, than has any journal in the West. It is, therefore, the best possible medium for advertising the pharmaceal and chemical preparations—the books and instruments that are likely to be required by medical men—than any medical journal in the West, or any medical periodical that reaches the West.

We have been informed oftentimes by both physicians and druggists that the JOURNAL ADVERTISER is very frequently employed as a directory in the aid of selecting the kind of medical books and preparations, and the instruments to be purchased.

We have many strong testimonials from those who have advertised in the JOURNAL, and who have realized *valuable* results.

The rates for advertising are very low indeed, considering the large number of the readers of the JOURNAL, and considering that although a great many of our readers are well to do physicians, they take no other medical journal.

For information concerning terms for inside and special pages, and for large space and long contracts, address DR. THOS. F. RUMBOLD,
1225 Washington Ave., St. Louis, Mo.

AMONG the new advertisements for this month we take pleasure in calling attention to that of W. H. Schieffelin & Co., one of the oldest houses in N. Y. City.

A REMINDER TO SOME OF OUR SUBSCRIBERS.

During the early part of the year, at the request of a number of our subscribers, we agreed to await their convenience for a few months in remitting their subscriptions. As half the year is passed, we hope that these friends will aid us by the prompt payment of the small sum due from each. The aggregate of these small sums amounts to over $4,000, which is becoming really burdensome to us; while we *do not* like to dun them, we trust that they will appreciate our condition, and we appeal to them to let this general notice be sufficient. Those of our subscribers who have not paid for 1878, or who have not or do not soon signify their intention to remit their subscription, may not receive another JOURNAL after this number. We do not like to do this, but the profit of the JOURNAL is too small to let the account run longer.

A FEW of our subscribers have complained that we have advertising pages between some of the departments of the JOURNAL. Many of them do not know that the subscribers of a journal do not support it, and that if were not for the income from the advertisements, our readers would get scarcely one quarter of the reading matter that they now receive for the same price.

We are prescribing John Wyeth & Bro.'s Dialysed Iron every day, and are well pleased with its effects; in fact, we use no other preparation of Iron internally.

THE last number ended the thirty-sixth volume of the JOURNAL proper, but the department of the St. Louis Medical Society will continue to the end of the year before its volume will be closed. The department of the Tri-State Medical Society will be continued until the issue of the October number, when it will be closed. We expect to continue the publication of these two Societies, the transactions of which will form one volume per year, for each; therefore when the JOURNAL is to bound for 1879, it will form two volumes of the JOURNAL proper—the thirty-sixth and thirty seventh—the second volume of the St. Louis Medical Society, and the first volume of the Tri-State Medical Society, making four volumes in all.

DR. BORGK's little work, "Fracture of the Femur," has been very well received by the profession. He contemplates another edition.

OWING to an oversight we published the paper by Dr. Maughs in the St. Louis Medical Society proceedings without stating who its author was. In order to correct the important omission, the thirty-seventh to the forty-second pages inclusive, were printed again, and placed in the front of the St. Louis Medical Society proceedings. These six pages are to take the place of the imperfect six pages found in the May number of the JOURNAL. We wish our readers to take particular notice of this when the transactions are to be bound.

WANTED.

We will pay full price for the following back numbers of the *St. Louis Med. and Surg. Journal:* No. 10, Vol. I (1843–44); Nos. 1–10, Vol. II 1844–45); Title page and Index, Vol. IV.; No. 6, Vol. VI, and Vols. I and II, of New Series (1864–5).

Also Nos. 1, 5, 6, 9 and 10 of Vol. I (1850), of the *St. Louis Probe.*

Editorial.

The Yellow Fever of 1878 and the St. Louis Medical Society.

The St. Louis Medical Society, in November, 1878, passed resolutions looking to a careful collection of all the facts of the Great Yellow Fever Epidemic relating to the City of St. Louis. A committee of three medical gentlemen was appointed under the resolutions to collect a history of every case, and as far as practicable, to trace its origin, with especial reference to the question of contagion. The work is now accomplished and the report of the committee will shortly be published.

In this action, the Society has shown a most praiseworthy spirit, and a full recognition of the great importance of preserving an accurate record of the effects upon the population of St. Louis, of the large influx of refugees from cities where yellow fever was prevailing, and the direct result of cases occurring in the city upon persons necessarily or otherwise in contact with them. As St. Louis is upon the extreme frontier of the yellow fever regions, it has been highly instructive and important to note the influence of imported yellow fever upon her citizens, and it has been far more easy to determine the exact results of the contagiousness of the disease here, than is possible where yellow fever exists often or very extensively. Under the latter circumstances the origin of each case is shrouded in impenetrable obscurity. In this city, on the other hand, the facts have been quite uninvolved, and the origin of nearly every case, local or imported, has been clearly determinable.

We are gratified that the profession has not been controlled by any short-sighted policy leading to a suppression of the facts. These facts have been widely circulated, and will be told for us whether we like it or not, and it is, therefore, altogether best that we should tell them in our own way, neither seeking to hide nor extenuate anything. This is the spirit of truth and honesty, and of true medical science—that, consequently, under whose guidance, the interest of the half-million souls of St. Lous will be

best subserved. St. Louis is not only foremost, but absolutely unique in a work of this kind. The profession has determined that the terrible lessons of 1878 shall not pass unobserved nor unheeded—for they know that what has already occurred may be once again repeated, perhaps with more terrible accidents still; and they feel that hygienic lines of policy must be at once clearly defined, and the priniciples of sanitary science not merely formulated but scrupulously practiced.

OBSTETRIC FORCEPS.

An obstetric forceps wave is now rolling over the profession. It commenced about six weeks ago in London, and reached St. Louis in about three weeks. At this time, Dr. Maughs gave it an increased impetus, by reading a very able paper before the St. Louis Medical Society, in advocacy of the more frequent use of the forceps. This paper appears in the St. Louis Medical Society department in this journal. At a subsequent meeting of this society, Dr. Thomas Kennard read an equally able paper, the intention of which was to check the enthusiasm of the ultra advocates of the use of the forceps. At the next meeting of the society (July 12th), Dr. L. Ch. Boisliniere will defend the following five propositions:

1. The forceps are the instrument of the mother and of the child.
2. When properly applied, and with a correct knowledge of the mechanism of parturition, they can never do harm, and should, therefore, be used whenever labor is arrested, and for puerperal accidents.
3. Far from favoring the provocation of vesico or recto-vaginal fistula, or the laceration of the perineum, the timely application of the forceps tends to prevent these accidents.
4. Quicker and better recoveries and fewer puerperal complications follow the use of the forceps.
5. The statistics of lying-in hospitals are not conclusive on this question.

Usually the Society adjourns at this season of the year, over the warm nights, to the cooler evenings of September; but the interest excited by Dr. Maughs' paper, together with the "wave" alluded to, has kept up the fervor of the obstetric forceps question higher than the hot point of the thermometer.

The Report on Yellow Fever.

The Report of the Committee on Yellow Fever in St. Louis to the medical society will be published at once. This report comprises a detail of all cases, as far as practicable, occurring in the persons of refugees from infected localities; of all cases occurring in residents of this city, whether by contagion or otherwise; of the cases which occurred at Quarantine and on the Quarantine transport Steamer Edwardsville; the statement of the Health Commissioner respecting the measures taken by the authorities to guard against contagion in the city, and to provide for the sick arriving by train or steamer, and various tabulations and summaries of each category of cases. Appended to the main body of the report, is an analysis of the meteorology of St. Louis for 1878 and the four preceding years, compared with that of ten other cities of the Mississippi Valley, Gulf and Atlantic seaboard, with reference to the origin of sunstroke, sporadic cholera, malarial, yellow and other fevers.

Medical Association of the State of Missouri.

We will commence the publication of these transactions in the next number of the JOURNAL. They will form a department by themselves, like those of the St. Louis and Tri-State Medical Societies. These proceedings will make between 200 and 300 pages, and will be a valuable addition to the distinctive features of this journal.

Subscribe Now.

Every practitioner and intelligent citizen of the Mississippi Valley, and especially of those localities which felt at least the imprint of the lion's claws last summer, should provide himself with a copy of the report of the yellow fever committee to the Medical Society of St. Louis. In the report all the main facts of the scourge of 1878 upon the largest city on the banks of the Father of Waters, whose location had hitherto sufficed to shield her against any perceptible damage from yellow fever prevailing at the South, are clearly set forth. Many of these facts are of the most interesting character, and are destined to exert a powerful influence upon the medical theory and sanitary practice, not only in St. Louis but in all the cities and towns along the Mississippi and its tributaries, as well as in rural districts in continuity by rail with Southern towns usually subject to yellow fever. Those who wish a copy should subscribe now, as the issue will be limited. The report will be issued during the present month. Address Dr. Thos. Kennard, Chairman Publication Committee, or this office. Price $2.00.

Book Reviews.

THE PRINCIPLES AND PRACTICE OF GYNÆCOLOGY. By THOMAS ADDIS EMMET, M. D., Surgeon to the Woman's Hospital of the State of New York, etc.; (with 130 illustrations.) [Henry C. Lea: Philadelphia, 1879.]

For this eminently original and truly great work the author deserves the gratitude and will receive the praise of the entire profession. Unlike many of the books with which the modern medical press teems, it is not a mere compilation of other men's labor, written for the selfish purpose of giving an ignorant pretender undeserved distinction, but an exposition of the candid and mature experience of an accomplished master, in a field of unexampled richness. The marvelous industry and conscientious zeal the author has evidently exerted, to formulate the laws of disease and analyze the results of treatment, are admirable, while the amount of available information he has condensed into convenient form for use, is unparalleled in gynæcological literature.

To Emmet's energy, ability, influence and industry, is chiefly due the existence of that wonderful disseminator of gynæcological knowledge, the Woman's Hospital of the State of New York. Dr. Sims deserted it in its infancy, and Dr. Emmet's fostering care rescued it from early death. Those who now inspect the stately structure, or are only acquainted with it through its far-reaching fame, little guess the troubles, the discouraging reverses and almost hopeless obstacles Emmet encountered and bravely struggled through, to establish firmly this proudest of American institutions. For this inestimable service the author deserves the grateful acknowledgments of science and of suffering humanity; but more admirable still is that devotion to truth which prompted him, though often importuned, to decline the role of teacher until he had amply tested his convictions by time and observation. Emmet's book—its originality makes it truly *his*—is now before the profession, to be tested by its intrinsic merit. In many respects it is in advance of the general standard of knowledge, and though a casual glance suffices to convince the discriminating reader of its superior worth, we predict that it will grow in professional favor, as time more fully unfolds the truths it contains.

Chapter I treats of the relations of climate, education and social conditions to the development of the young female, and gives some excellent advice in regard to the physical and mental training of girls, and of the importance of securing the normal establishment of the menstrual function. The author's observation

has deeply impressed him with the critical import of the adolescent period, and if he has succeeded in imbuing others with his own well-founded convictions relating thereto, he will have done good service.

Chapters II and III embrace a description of all the instruments needed for ordinary gynæcological purposes. We are pleased to observe that many of the worthless or worse than worthless ones that the indiscrimination of authors, or their desire to compliment inventors, has so often led them to illustrate and describe, are expunged from this catalogue. New instruments, and especially new pessaries, are for the most part fraudulent bids for cheap notoriety, or else the genuine offspring of the crude, ill-digested experience of their originators. They have done immense harm, and it is time responsible persons gave them the cold shoulder. The precautions necessary to be observed in dilating the uterus, and the relative merits of different kinds of tents are also discussed. The importance of washing out the uterus after dilating it is insisted on. We adopted this practice before we knew it was pursued by Dr. Emmet, and bear testimony to its efficacy as a means of preventing septic inflammation. The author very properly asserts his claim to originality in the invention of several instruments in common use, for which he has not hitherto received credit. The uterine probe, generally supposed to be another's, and the applicator, used by every gynæcologist, are Emmet's. Several other important suggestions that have become common property without any proper recognition of the source from which they came, belong to the author. The hot water douche is a notable instance of this kind. No more valuable contribution than this has been made to the therapeusis of female disease, and its introducer should receive all praise.

Chapter IV gives a form for the convenient record of cases, designates the chief points to be considered in forming a diagnosis, and then proceeds to demonstrate the method in which a physical examination should be conducted. The simple and direct, but precise and unostentatious manner in which this difficult task is performed, at once stamps the author as a most accomplished diagnostician, and we do not hesitate to pronounce it the best chapter ever written on the subject.

Chapter V is devoted to a discussion of the causes of disease, reflex and direct. It is prepared with the greatest care, is full of instruction, and evinces a high order of ability.

Chapter VI. The principles of general treatment are considered. Under this head the influence of the mind over disease—anæmia, indigestion, mal-nutrition, sunlight, diet, stimulants, anodynes, purgatives, rest in bed, dress and moral management—are treated in a manner that is highly instructive and interesting to the reader, and with a precision that gives assurance of the author's perfect familiarity with every detail of the subject. Per-

haps no man, of such extensive experience, has exercised such close personal supervision over his patients as Emmet, and this fact, coupled with his acknowledged ability as an observer, invests this chapter with more than usual interest.

Chapters VII and VIII are devoted to a consideration of the principles that should guide local treatment. The mode of administering, and philosophy of the action of the hot water douche, are explained at length and that with such minuteness and clearness, that if this supremely important, commonly used, but generally misused appliance, is not now comprehended and properly utilized, it will be the fault of the reader.

Much space is devoted to what the author denominates the *health-line of the uterus*. A clear understanding of the fact here pointed out, is the pivot on which the successful application of mechanical support turns. It is, indeed, the key that opens the door of relief to a very large class of cases. The author was the first to call attention to the importance of obeying the principle that underlies the fact he here elucidates, and its thorough comprehension will do much to remove the prejudice that exists against pessaries in the minds of many who never comprehended the purposes they should subserve, and better still, will do much towards relieving the prolonged agony of female invalids. The various substances used as local applications are rehearsed, and their respective merits canvassed; blisters to the cervix and intra-uterine injections, are also discussed. The author's testimony on the latter point, will enlighten some gynæcologists, particularly in the West, where they seeem to have a horror of this method of treatment. We applaud the strong stand taken against the indiscriminate custom now so prevalent, of cauterizing the uterine cavity. The author says: "Under the guise of uterine surgery the uterus has been subjected to a degree of malpractice which would not have been tolerated in any other organ of the body. Its cavity has been and still is made the receptacle for agents so destructive, that no conscientious man would employ them for the treatment of disease in any other organ of the body, without a full appreciation of his responsibility. But I trust we have already passed the heroic age and that in the treatment of these diseases we may be governed hereafter, by the same rational principles applicable elsewhere and that we may simply, as we term it in this country, exercise our "common sense."

Chapter IX relates to ovulation and menstruation. It is redolent with useful information arranged in statistical order. It evidently cost the author more labor and thought than any other chapter in the work. It is unlike anything hitherto written on the subject, and it will no doubt furnish texts for many future essays.

The next chapter is devoted to the abnormal changes in the menstrual flow; under which head, ammenorrhœa and menor-

rhagia are treated in a new and interesting style. The author opposes the theory of mechanical dysmenorrhœa, referring the pains to other causes. Justice cannot be done to his views in the necessarily brief space alloted to this article. While we believe there is much truth in his theory, it does not contain the whole truth, nor will it be generally accepted. Practically, dysmenorrhœa is obstructive, whether the obstruction be occasioned by a flexure of the uterus, by clots of menstrual blood or by shreds of decidual membrane. In most cases both these causes combine to cause the obstruction, and we incline to the opinion that the latter causes are secondary. When a man enlarges a canal and relieves dysmenorrhœa, as every gynæcologist in the country has repeatedly done, it is the most convincing evidence to him that the canal was too small.

In succeeding chapters atresia of the vagina, imperforate hymen, retention of menstrual blood, hematocele and pelvic cellulitis are elaborately explained. To the treatment of each of these conditions, the author has made important original contributions, and no one can read what he has written on them, without instruction.

Displacements of the uterus, their etiology and treatment, are ably and fully considered, and the subject of mechanical support is more correctly and practically presented than in any other work with which we are acquainted. Important contributions are made to the subjects of laceration of the perineum, procidentia uteri, inversion of the uterus, and indeed to almost every operative procedure recognized by gynæcologists. His idea of closing the cervix over the partially reduced fundus of the inverted uterus, is a most valuable suggestion, and though made more than ten years ago it has not attracted the attention its utility deserves.

Chapters XXIII and XXIV are devoted to lacerations of the cervix. The author was first to call attention to the pathological import of this frequent and important lesion, and also to point out the means by which it may be best rectified. Certainly no one has done more to advance the cause of gynæcology, or to alleviate the misfortunes of women, than Emmet; but had he no other claim to distinction than this one service, it would, as the great Sims remarked, entitle him to immortality. This subject is so practically and fully presented in all its details that nothing is left for future investigators to add to it; nor is there any reason why the student of what he has laid before him should not comprehend the whole subject as clearly as the author himself. The beneficent capabilities of this operation, and the far-reaching evils that emanate from the injury it is designed to repair, are only indistinctly discerned, even by experts, and the time is not distant when this fact will be recognized and admitted.

In the chapter that follows amputation by the cervix is held up to the light; and we are infinitely gratified to see that the author places himself squarely on record, as unequivocally op-

posed to the unscientific proceeding, except when necessary for the extirpation of malignant disease. The indications that are urged for its performance do not exist; the results claimed for it are not attained; the harm it has wrought is incalculable; nor will the deaths it has caused ever be known. The day will surely come, and we trust it is near at hand, when amputation of the cervix for non-malignant disease will be numbered among the things that are past.

Cancer of the uterus, fibroid and ovarian tumors, neoplasms and diseases of the vulva, are treated under separate heads, in an attractive and practical manner, and in each subject the reader will find new facts and theories that furnish ample food for observation and reflection.

Several of the author's theories are peculiar to himself, and are by no means orthodox; but this lends additional merit to any intrinsic worth they may possess. The system of moral hand-cuffing, and the want of moral courage, that has pervaded medical practice, writing and teaching, has long been a stumbling-block in the path of medical progress. While the restless, prying ambition that yearns after improvement, and is dissatisfied with what has already been done, serves to keep alive the spirit of enterprise and independence, and is the condition on which the life of science depends.

The new theories put forth by the author, are evidently the result of an honest searching after truth, of unsparing labor, and of patient, anxious reflection. Conclusions thus formed are not to be rejected nor discredited, simply because they conflict with other conclusions. The points to be ascertained are, are the arguments fair and the facts certain. Whether our author has obeyed these conditions, are questions on which a discriminating profession will finally pass judgment. Coming, as the theories do, from such eminent authority, whether they be right or wrong is the least part of the question, for they must excite the professional mind, stimulate fresh inquiry, and disturb with wholesome effect that love of routine that impels us to go groveling on in broad and beaten paths. Thus will they surely serve the interests of truth, for it has been truly said that the great enemy to knowledge is not error, but inertness. The author is certainly not indolent, and that he has not shirked the responsibility of dissenting from time-honored doctrines, redounds to the value of his work.

The volume contains 855 pages, printed and bound in excellent style. The illustrations are well executed, were prepared from drawings made by the author himself, and convey a correct impression of the conditions he designs to represent.

It is simply an indispensable book to all who treat female diseases, and contains more that is new and true than any similar work ever published. W. L. BARRET.

Physiological Therapeutics—A New Theory. By Thos. W. Poole, M. D., M. C. P. S., Ont. Published by the Toronto News Company, the American News Company, New York, the National News Company, London.]

This book is written by a former pupil of Joseph Workman, Esq., M. D., M. C. P. S., one of the collaborators of this journal, and dedicated to the latter "in admiration of the valuable services he has rendered to medical and sanitary science as a skillful physician, a learned and eloquent teacher of medicine, and a warm friend of humanity."

The author states in his preface that "what is presented to the reader in these pages is not a new system of medical practice, but a *new theory of the inter-relations of nerve force and muscular tissue throughout the body*, including the relations of nerve and muscle in the coats of arteries whereby their calibers is regulated, and the mode of action of that large class of drugs which operate through the medium of the nervous system."

He does not claim that the "facts presented are necessarily new," but that the interpretation or explanation of them "is novel." The interpretation of them is not only new, but to our mind quite plausible, and in many instances incapable of refutation, as we shall see further along. The physician who would be a philosopher as well as an empyric in his therapeutics will find in these pages ample food and stimuli for vigorous thought.

The general principles which underly the work are contained in the following six propositions, and upon them the author has constructed a fabric attractive and strong in appearance—Doric rather than Corinthian, carrying out the architectural simile—but whether the whole structure is destined to endure, we leave to the tests of time and the discriminating judgments of those who shall examine the book.

First Principle.—The muscles and muscular tissues of the body generally are endowed with an inherent contractile power of their own, independent of nervous influence, but this contractile power of the muscles is regulated for voluntary purposes through the agency of the nervous system.

The author attempts "to show that this property of muscular contractility is capable of manifesting itself in the absence of any special natural or artificial stimulant—that is, that the muscular contractility displays its effects in the body when simply left to itself, and not restrained by nervous influence."

On the theory advocated by Dr. Poole, "the motor nerves and muscular fibers are natural antagonists, yet the latter is not divorced from the influence of the nerve centers even as regards the exercise of its contractile power; for not only by means of trophic or nutritive means, but also by means of the different nerves, transmitting to the center a yielding sensation from the muscles," are the muscles "kept *en rapport* with the central gan-

glia, and thus the power of co-ordination of the different parts of the muscular apparatus is duly maintained." "The regularity and efficiency of muscular motion in response to the will is provided for, without any apparent necessity for guidance from the motor nerves," from which the author infers "that any assumed stimulus from these nerves is not a necessity in co-ordinate muscular movements, and as a consequence that all the conditions of normal muscular activity are provided for by the restraining, not *compelling*, power of the nerves towards the muscles."

He asks us to "bear in mind that when we *will* to make a certain movement we are unconscious of the selection of special muscles, the will being only concerned and conscious of the aggregate result;" and in support of this brings forward the well-known physiological illustration of the *will* and the action of the larynx in the production of vocal sounds, it being impossible for the will to raise or depress the larynx as a whole, or move its cartilages, or extend or relax the vocal ligaments "by simply willing to do so, no matter how strongly." But when we conceive of a tone to be produced and will to produce it, the necessary co-ordination of movements takes place, "and the predetermined tone is the result." The author maintains that it is the same with the other muscles of the body. Besides the quoting of physiological opinion the author further brings to the support of his first principle such physiological illustrations as the following: "Rhythmical contractions take place in the rudimentary heart, when as yet no nerves or ganglia have made their appearance."

The admission of the attribute of "inherent contractility of the muscles" by the physiologists, the author construes, though they were not intended for that purpose, in support of his thesis.

The author confronts the physiologists with many apt quotations like the following: "It is contrary to all analogy to assign to one tissue the power of conferring vital properties on another. And surely it is not too much to suppose that a tissue-like muscle, so complex in its chemical composition, and so exquisitely organized for the development of its proper force, should be dependent on the nervous system, or a portion of it, for its contractile power," which he quotes from Todd and Barnard's Physiological Anatomy, p. 303. And he places Hanfield Jones and Edward Sieveking in the same boat, sailing before the same wind of doctrine, and likewise Dr. Anstie (Stimulants and Narcotics, p. 168), who associates certain convulsive phenomena with more or less complete paralysis.

Twenty-six pages are devoted to the discussion of the first principle under the sub-heading of Active (voluntary) Contraction, Passive Contraction (or tone), Irregular (Involuntary spasms), Contraction, Relaxation or Flaccidity, Syncope, etc., *rigor mortis*, but want of space forbids further extracts from them.

The Second Principle has already been indicated in what we have quoted from the author's amplification of his first. It is

that "the influence exerted by the nervous system in its relation to muscular tissue is that of a restraining, not that of a compelling, power."

The third proposition is that "electricity is not a stimulus to nerve or muscle. On the contrary, its action is that of a sedative, anæsthetic and paralyzer." "It is through this quality of its action," the author maintains, "that it soothes pain, while its tonic effects depend solely on the indirect improvement in nutrition, brought about by an infinite number of contractions and relaxations of muscular fiber whose spasmodic contractions depend on the same conditions as muscular spasms otherwise occurring," viz.: a partially paralyzed condition of some portion of the motor nervous system, setting muscular fiber force to contract, and not on any exalting or vitalizing quality whatever.

Fourth Proposition.—The contractions induced more especially in emstriped muscular fiber by ergot of rye follow the same rule—i. e., they depend on the withdrawal of nerve force.

Fifth Principle.—The muscular fiber of the middle coats of the arteries in the normal state tend continually to exert their inherent contractile power in lessening the caliber of these vessels, and so diminishing the blood supply, while the vaso-motor nerves ramifying among these muscular fibers, have for their function the restraining of this contractile power; and when predominant, aided by blood-pressure, induce dilation of the blood vessels, with correspondingly increased vascular activity.

Sixth Proposition.—Certain drugs, by modifying the activity of the vaso-motor nerves (increasing their power by nutritive changes in the cells which generate nerve force, or paralyzing the nerves themselves, and so arresting their functional activity), cause the increase or diminution in the caliber of the blood vessels, and so exert an important influence, not only over the nutrition and temperature of the parts, but in controlling congestive and inflammatory processes, and so restoring normal circulatory activity."

The author then proceeds to consider, in turn, the several principles or propositions just enumerated, and to support them "from the writings of the recognized authorities whose labors have built up the hypothesis" he opposes, and "from such general facts and considerations as he has been able to gather."

Under the head of "Links in the action of medicines in accordance with the theory" the author discusses the action of the different drugs. Aconite, veratrum viride, gelseminum, apomorphia, digitalis, conium, potassium bromide, hydrobromic acid, cannabis inchia, ergot, quinine, arsenic, lead, zinc, calabar bean, antimony, ipecac, mercury iodine, alcohol, ether, chloroform and chloral, "as drugs which paralyze vaso-motor nerve action and so tend to induce arterial contraction," and nitrite of amyl, glonoine, phosphorus, ammonia, turpentine, guiacum, sulphur, colchicum, arsenic, quinine, strychnia, jaborandi, alcohol, chloroform

and ether as "drugs which increase vaso-motor nerve force, and so tend to induce vascular dilation."

And he most ingeniously harmonizes the actions of them all with his theory, and concludes two hundred and thirty pages of thoughtful work by asking for his theory "no favor beyond that to which, on fair and candid consideration, it may be found justly entitled."

Barring a somewhat too frequent reference to the homeopathic pharmacopœia of Dr. R. Hughes we have no especial fault to find with the manner in which the author has done his work, though for the successful maintenance of so revolutionary a theory in physiology the author will find it necessary to go over a wider field of work and cope with many adverse facts.

We lay down the book regretting that we have not more time to criticize it, and with the confident assurance that whoever shall take it up and carefully read it will be amply repaid for his labor in the fruitful mental activity its pages will excite. At least the book has thrown the ideational centers of our cerebral cortex into a commotion from which we fear they will not soon subside. We shall examine our therapeutics all over again, to be assured that what we have been calling vaso-motor nerve stimulants are not in reality vaso-motor nerve paralyzers, and *vice versa;* and all on account of Dr. Poole having written this little book. C. H. Hughes.

Transactions of the American Gynæcological Society; Vol. III., (for year 1878). Houghton, Osgood & Co., Boston, 1879.

The public, which has awaited with considerable interest the publication of the proceedings of the American Gynæcological Society, at their third annual meeting held in Philadelphia, Sept., 1878, will be amply repaid by a careful study of the handsome volume with which the publishers have furnished us. It is to be regretted that the publication of these transactions should have been so long delayed, and we venture to hope, that in future, arrangements may be consummated whereby this valuable addition to the literature of gynæcology and obstetrics will be placed in the hands of general readers by the first of January each year.

Want of space forbids an extended notice of individual papers, several of which have already been published in whole or in part, in the various journals of the country. No better idea, however, can be given of the scope and value of the volume before us, than by reciting simply the titles of papers presented, with the names of their eminent authors. The first paper is by Acting President, Dr. Wm. Goodell, of Phila., who occupied the chair in the place of Dr. Peaslee, deceased. After a formal opening, and handsome tributes to the dead President, and to Dr. W. L. Atlee, Dr. Goodell devoted the remainder of his address to an able discussion of the connection between *nerve tire (neurasthenia)*, and womb disease.

2. "A Case of Rupture of the Perineum, without implication of the Vulva," by J. C. Reeve, M. D.

3. "On the Surgical Treatment of Stenosis of the Cervix Uteri," by J. Marion Sims, M. D.

4. "A case of Extra Uterine Pregnancy, with Discharge of the Fœtal Bones through the Bladder" by J. P. White, M. D.

5. "A Case of Foot and Head Presentation; Fracture of the Spine in Utero," by J. T. Johnson, M. D.

6. "The Necessity for Early Delivery, as Demonstrated by the Analysis of one hundred and sixty-one cases of Vesico-vaginal Fistula," by T. A. Emmet, M. D.

7. The Hand as a Curette in Post-partum Hemorrhage," by H. P. C. Wilson, M. D.

8. "The treatment of Post-partum Hemorrhage," by R. A. F. Penson, M. D.

9. "Dermoid Tumors of the Ovary," by W. H. Byford, M. D.

10. "A Contribution to the Study of the Treatment of the Acute Parenchymatous Nephritis of Pregnancy," by W. L. Richardson, M. D.

11. "Alternating Anterior and Posterior Version of the Uterus," by S. C. Busey, M. D.

12. "Remarks on Gastro-elytrotomy," by H. J. Garrigues, M. D.

13. "The Pendulum Leverage of the Obstetric Forceps," by A. H. Smith, M. D.

14. "Rectal Alimentation in the Nausea and Inanition of Pregnancy; Intestinal Exhaustion, an Important Factor, and the true solution of its efficiency," by H. F. Campbell, M. D.

15. "Unexpected Narcotism, induced suddenly on the third day of the administration of three-grain Suppositories of Opium," by J. P. White, M. D.

16. "Three Cases of Rupture of the Uterus," by T. Parvin, M. D.

17. "On the Early Delivery of the Placenta when Prævia; with the Relation of a Case of Spontaneous Separation of the Placenta without Hemorrhage," by I. E. Taylor, M. D.

18. "Treatment of Pelvic Indurations and Adhesions," by E. Van de Warker, M. D.

19. "On some points in the Treatment of Sterility, by A. Reeves Jackson, M. D.

20. "A Case of Extreme Ante-version, and Ante-flexion of the Uterus at full term of Pregnancy," by I. E. Taylor, M. D.

21. "The Mechanism of Retro-version and Prolapses of the Uterus, considered in relation to the simple Lacerations of the Cervix Uteri, and their Treatment by Bloody Operations," by N. Bozeman, M. D.

The volume is copiously indexed, to which is appended a very extensive and valuable obstetrical and gynæcological index, prepared chiefly by Dr. Billings; the whole very handsomely bound in cloth. W. Coles.

Books and Pamphlets Received.

A GUIDE TO THE QUALITATIVE AND QUANTITATIVE ANALYSIS OF THE URINE. Designed for Physicians, Chemists and Pharmacists by Dr. C. NEUBAUER, Professor, Chief of the Agricultural, Chemical Laboratory, and Docent in the Chemical Laboratory in Weisbaden, and Dr. J. VOGEL, Professor of Medicine in the University at Halle. With preface by Prof. Dr. R. FRESENIUS. Translated from the Seventh Enlarged and Revised German Edition, by ELBRIDGE G. CUTLER, M. D., Physician to Out-Patients at the Massachusetts General Hospital. Pathologist at the Boston City Hospital, and Assistant in Pathology in the Medical School of Harvard University. Revised by EDWARD S. WOOD, M. D., Professor of Chemistry in the Medical School of Harvard University. pp. 551, 8 vo. [New York: Wm. Wood & Co., 1879.]

[It has been customary for half a century to bind medical books in the whitest sheep skin leather that can be made. When just bound, this looks very bright and handsome, but with a few weeks handling becomes very dirty.

For some years Wm. Wood and Co. have been endeavoring to find a substitute, which, while equally strong and soft, would retain its fresh appearance for years.

The present binding a dark maroon color, is now offered for trial and criticism. It is not an imitation of Russia nor of anything else—it is simply cow skin, which is stronger than sheep skin. It is soft, and while the color will not show dirt nor stain, we believe will not fade. EDITOR.]

ELEMENTS OF MODERN CHEMISTRY. By ADOLPHE WURTZ, Member of the Institute, Honorary Dean and Professor of Chemistry of the Faculty of Medicine at Paris, etc., etc. Translated and edited, with the approbation of the author, from the fourth French edition, by WM. H. GREENE, M. D., formerly Professor of Chemistry in the Jefferson Medical College, Philadelphia, etc., etc. With 132 illustrations; 12mo.; pp. 687; $2.50. [Philadelphia: J. B. Lippincott & Co., 1879.]

DEMONSTRATIONS OF ANATOMY. Being a Guide to the Knowledge of the Human Body by Dissection. By GEORGE VINER ELLIS, Emeritus Professor of Anatomy in the University College, London. Eighth Revised English Edition. Illustrated by 249 Engravings on Wood. pp. 716. [Phila: Henry C. Lea. 1879.]

THE THERAPEUTIC VALUE OF ERGOT. By. J. W. COMPTON, M. D. [Reprint from the *Detroit Lancet*, March, 1879.]

Lindsay & Blakiston, of Philadelphia, are engaged in publishing works on "Preventive Medicine," called American Health Primers. Edited by W. W. Keen, M. D. The following volumes are in press, and will be issued about once a month:

"Hearing, and How to keep it." By Charles H. Burnett, M. D., of Phila. "Long Life, and How to reach it." By J. G. Richardson, M. D., of Philadelphia. "Sea Air and Sea Bathing." By William S. Forbes, M. D., of Philadelphia. "The Summer and its Diseases." By James C. Wilson, M. D., of Philadelphia. "Eyesight, and How to Care for it." By George C. Harlan, M. D., of Philadelphia. "The Throat and the Voice." By J. Solis Cohen, M. D., of Philadelphia. "The Winter and its Dangers." By Hamilton Osgood, M. D., of Boston. "The Mouth and the Teeth." By J. W. White, M. D., D. D. S., of Philadelphia. "Our Homes." By Henry Hartshorne, M. D., of Philadelphia. "The Skin in Health and Disease." By L. D. Bulkley, M. D., of New York. "Brain Work and Overwork." By H. C. Wood, Jr., M. D., of Philadelphia.

Pott's Disease, its Pathology and Mechanical Treatment. With Remarks on Rotary Lateral Curvature. By Newton M. Shaffer, M. D. pp. 82. 16 mo. [New York: G. P. Putnam's Sons. 1879]

Vol. I, No. 1. Neurological Contributions. By Wm. A. Hammond, M. D. and Wm. J. Morton, M. D. Quarterly. pp. 96. [G. P. Putnam's Sons. 1879.]

Mansill's Almanac of Planetary Meteorology and New System of Science, for 1879. By Richard Mansill. [Rock Island, Ill.; pp. 52, 4to.]

Hand-book of Diagnosis and Treatment of Diseases of the Throat and Nasal Passages. By Carl Seiler, M. D. 35 illustrations. 16 mo. pp. 156. [Philadelphia: Henry C. Lea.]

Color Blindeess: Its Dangers and its Detection. By B. Joy Jeffries, A. M., M. D. 16 mo.; pp. 312, with colored plates. [Boston: Houghton, Osgood & Co. 1879.]

Oyster-Shucker's Corneitis. (*Corneitis Ostrearii.*) By. W. J. McDowell, M. D. [Reprint from *Virginia Medical Monthly*, February, 1879.]

The Rational Therapeutics of Simple Fever. By J. E. Tefft, M. D. [Read before the Springfield, (Mo.) Medical Society, and printed by its direction.]

Evolution and Human Anatomy. By Stanford E. Chaille, A. M., M. D. [Reprinted from the *Medical Record*, February 22d, 1879.]

METEOROLOGICAL OBSERVATIONS.

By A. WISLIZENUS, M. D.

The following observations of daily temperature in St. Louis are made with MAXIMUM and MINIMUM thermometer (of Green, N. Y.). The daily minimum occurs generally in night, the maximum at p. m. The monthly mean of the daily minima and maxima added and divided by two, gives quite a reliable mean of the monthly temperature.

THERMOMETER, FAHRENHEIT—JUNE, 1879.

Day of Month	Minimum.	Maximum.	Day of Month	Minimum.	Maximum.
1	56.0	59.0	18	59.0	78.5
2	52.5	67.5	19	59.5	80.0
3	**50.5**	72.5	20	61.0	86.5
4	61.5	88.5	21	72.0	77.0
5	60.0	90.0	22	68.5	85.0
6	68.0	89.0	23	71.0	78.0
7	63.0	89.0	24	70.0	85.0
8	69.0	92.0	25	72.0	80.5
9	72.5	93.0	26	74.5	83.0
10	72.0	94.5	27	70.5	79.0
11	66.5	9 .0	28	68.5	77.5
12	69.5	90.0	29	63.0	81.0
13	69.0	91.5	30	66.5	84.5
14	75.0	**96.5**	31		
15	68.5	84.0			
16	65.0	70.5	Means	65.4	83.0
17	54.0	76.1	Monthly Mean	74.2	

Quantity of rainfall, 4.1 inches.

MORTALITY REPORT.---CITY OF ST. LOUIS.

FROM MAY 18, 1879, TO JUNE 14, 1879, INCLUSIVE.

Septicæmia..... 5	Cholera Infantum 51	Hydrocephalus &	Apoplexy 10
Measles..... 3	Inanition, Want of	Tubercular Men-	Cyanosis and At-
Syphilis Cong'al.. 1	Breast Milk, etc. 19	ingitis..... 5	electasis..... 2
Scarlatina..... 2	Alcoholism..... 4	Meningitis and	Premature & Pre-
Pyæmia..... 0	Rheumatism and	Encephalitis ...30	ternatural Birth. 16
Erysipelas..... 4	Gout.....	All Diseases of the	Surgical Operat'ns 1
Diphtheria 3	Cancer 13	Brain and Ner-	Deaths by Suicide 9
Membranous Croup 0	Phthisis Pulmon..52	vous System. ...2	Deaths by Accid't 17
Whooping Cough. 5	Bronchitis 5	Cirrhosis of Liver	
Fibro-Cystic Tumor	Addison's Disease 0	and Hepatitis ..10	Total Deaths from
of Womb 1	Pneumonia 1	Enteritis, Gastro-	all Causes.....461
Typhoid Fever ... 3	Heart Diseases ... 5	Enteritis, Peri-	Total Zymotic Dis-
Cerebro Spinal Fe. 2	Other Diseases of	tonitis, and Gas-	eases 132
Remittent, Inter-	Respir'y Organs 5	tritis 14	Total Constitution-
mittent, Typho-	Entro-Colitis ...	Bright's Disease	al Diseases 100
Malarial, Con-	Marasmus — Tabes	and Nephritis... 1	Total Local Dis-
gestive & Simple	Mesenterica and	Other Diseases of	eases 175
Contin'd Fevers, 7	Scrofula..... 29	Urinary Organs. 3	Total Develop'tal
Puerperal Disea's.15	Convulsions. 48	Recto-Pharyngeal	Diseases 18
Diarrhœal " 7	Aneurism	Abscess	Deaths by Viol'ce 27

CHAS. W. FRANCIS, *Health Commissioner.*

Trommer's Extract of Malt.

The rapidly increasing demand for our IMPROVED EXTRACT OF MALT, during the four years that it has been manufactured and offered to the medical profession in America, justifies the belief that in its production here we are meeting a generally felt want.

Long experience in manufacturing Malt Extract has enabled us to completely overcome the many difficulties attending its manufacture in large quantity; and we positively assure the profession that our Extract of Malt is not only perfectly pure and reliable, but that it will keep for years, in any climate, without fermenting or molding, and that its flavor actually improves by age. Our Extract is guaranteed to equal, in every respect, the best German make, while, by avoiding the expenses of importation, it is afforded at less than half the price of the foreign article.

The Malt from which it is made, is obtained by carefully malting the very best quality of selected Toronto Canada Barley. The Extract is prepared by an improved process, which prevents injury to its properties or flavor by excess of heat **It represents the soluble constituents of Malt and Hops,** viz: Malt Sugar, Dextrine, Diastase, Resin and Bitter of Hops, Phosphates of Lime and Magnesia, and Alkaline Salts.

Attention is invited to the following analysis of this Extract, as given by S. H. Douglas, Professor of Chemistry, University of Michigan, Ann Arbor.

TROMMER EXTRACT OF MALT CO:—I enclose herewith my analysis of your Extract of Malt:

Malt Sugar, 46.1; Dextrine, Hop-bitter, Extractive Matter, 23.6; Albuminous Matter (Diastase), 2.469; Ash—Phosphates, 1.712; Alkalies, .377; Water, 25 7 Total, 99.958.

In comparing the above analysis with that of the Extract of Malt of the German Pharmacopœia, as given by Hager, that has been so generally received by the profession, I find it to substantially agree with that article.

Yours truly,
SILAS H. DOUGLAS,
Prof. of Analytical and Applied Chemistry.

This invaluable preparation is highly recommended by the medical profession, as a most effective therapeutic agent, for the restoration of delicate and exhausted constitutions. It is very nutritious, being rich in both muscle and fat producing materials.

The very large proportion of Diastase renders it most effective in those forms of disease originating in imperfect digestion of the starchy elements of food.

A single dose of the Improved Trommer's Extract of Malt, contains a larger quantity of the active properties of Malt, than a pint of the best ale or porter; and not having undergone fermentation, is absolutely free from alcohol and carbonic acid.

The dose of adults is from a dessert to a tablespoonful three times daily. It is best taken after meals, pure, or mixed with a glass of milk, or in water, wine, or any kind of spirituous liquor. Each bottle contains 1 1-2 lbs of the Extract.

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EXTRACT OF MALT, *With Hops (Plain)*,	$1.00
" " " " *Pyrophosphate of Iron (Ferrated)*..	1.00
" " " " *Cod Liver Oil*..	1.00
" " " " *Cod Liver Oil and Iodide of Iron*..	1.00
" " " " *Cod Liver Oil and Phosphorus*..	1.00
" " " " *Hypophosphites*..	1.50
" " " " *Iodides*..	1.50
" " " " *Alteratives*..	1.50
" " " " *Citrate of Iron and Quinia*..	1.50
" " " " *Pepsin*..	1.50

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EMPTY CAPSULES.

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These little articles will be found of great value and convenience in the hands of the physician who studies to remove the objectionable properties of the medicines which he deems it necessary to employ.

Many drugs, among which we may note *roots, gums, emetics, capsicum, etc.*, which—either from the more immediate effect to be produced, or from some special action to be desired—the physician proposes to administer in the *crude* or *powdered* state, in preference to any form of preparation, are practically debarred from use in certain cases on account of their properties (appearance, odor, taste), and the difficulty experienced in swallowing them. It is frequently advisable to conceal from the patient the nature or identity of the drug, because of some idiosyncrasy, or of his imagination with regard to its peculiar effects on his system.

To be able to easily disguise these features of a remedy at the bedside of a patient, at a time and place when he cannot employ the assistance of a pharmacist, is a great desideratum to the practitioner.

Our Capsules will fully supply this want; a few trials will demonstrate all their advantages, among which we may enumerate the following:

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Emetics are exhibited in capsules to great advantage, and quick returns may be confidently expected. In this respect capsules are in contrast to pills, which, from their form and constituents, gradually dissolve in the stomach, producing the effects desired from narcotics, tonics, etc., while they are not dissolved rapidly enough for the use to which powerful emetics are devoted.

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If you desire to procure any of our New Remedies, send for same to **Arthur Peter & Co., R. A. Robinson & Co., Louisville; Wm. Litterer & Co., Nashville; R. Mucready & Co., Renkirt Hale & Co., Ranchfuss, Egner, & Co., C. A. Nulsen & Co.,** and **C. E. Potts & Co., Cincinnati; Richardson & Co., Meyer Bros. & Co., A. A. Mellier, Jacob S. Merrill,** and **G. K. Hopkins & Co., St. Louis,** specifying **"P. D. & Co's"** In all cases, by so doing you will ensure reliable preparations of the **true drugs.**

creased after this to about six or eight pounds. I told her more than six years ago that there was but one remedy, and that was to remove the tumor by the knife, and if she allowed it to remain long, the whole mammary gland would become involved and have to be removed, but she never could make up her mind to have the operation performed. Before she went to Texas it had reached the weight of five or six pounds. After her return it began to grow again, and steadily increased in spite of all external medication. It was removed by Dr. John T. Hodgen at my request in a very rapid and scientific manner, the whole operation only requiring two or three minutes for its completion. He was assisted by Dr. Dean of the City Hospital, Drs. LeGrande Atwood, Robert J. Hill, myself and several members of the Hospital staff, who names are unknown to me. The dimensions of the tumor one week before the operation, were 26½, 25¾, 20½ and 20 inches, and at the time she was operated on were as follows: At the base, 26½ inches, a little below, 27¼, and diagonally across the tumor, 19½ inches. It increased and decreased at times in size and tension; the increase in bulk was quite marked at the approach of every menstrual period, and diminished somewhat after menstruation. The patient is doing well and will soon be able to leave the hospital.

Emphysema of Upper Lid Produced by Blowing the Nose after an Injury. By A. D. Williams, M. D.

A young woman of the "free and easy" class called last week to ask me about her eye, which she had injured only a few minutes before by a severe fall. By accident she tumbled down four or five steps out of a front door upon the pavement, striking heavily upon the bricks with the supra-orbital bone of the left side of the head and body. The fall caused considerable contusion of the flesh and some abrasion of the skin over the left eye, but no cut. Soon after she got up she had occasion to blow her nose quite hard, and was surprised to find that the upper lid puffed or swelled up to such an extent that she could not open the eye even with her fingers. The suddenness of the swelling and her inability to open the eye in any way naturally frightened her very much. Upon examination I could find no injury other than the contusion of the flesh and the abrasion of the skin over the eye. The peculiar cracking feeling communicated to the fingers by palpation conclusively proved that the great puffiness of the lid was caused by the presence of air in the areolar tissue of the lid. By pressing upon the lid a little I could force the air out of the lid into the deeper tissue of the orbit, which allowed the lid to partly open at once. The pressure caused the cracking noise to be both heard and felt by the patient.

To account for the emphysema of the lid it is necessary to suppose that the fall caused sufficient fracture of the bone at some point to make an opening through it. The locality of the

fractured point was most likely in the outer or anterior wall of the frontal sinus. When the patient blew her nose the pressure was sufficient to force the air through the opening in the areolar tissue of the lid. This satisfactorily accounts for the sudden swelling of the lid during the act of blowing the nose.

I report the case briefly on account of its rarity. I never before met with emphysema of the lid, either upper or lower, and do not remember even to have heard of such a case.

Dr. I. N. Love said that about eighteen months ago he was sent for to see a young man who had been drinking the night before, and who, during his debauch, had received a black eye. The principal injury was over the upper lid; it was in a similar condition to the case detailed by Dr. Williams. The patient was greatly alarmed at the effect of blowing his nose. The speaker advised him not to blow his nose, and in two or three days he was all right.

Dr. Wm. Dickinson:—Some twenty-five years since, when in general practice, I was summoned at midnight to see in consultation a case of general emphysema. The subject was a young man who during the preceding day and evening had indulged freely in drink. During a quarrel with a companion in the street, he was by him violently thrown prostrate upon the ground and forcibly clutched by the throat. By the rough treatment received, he was rendered quite helpless and insensible. Having been picked up by some of his friends, he was conveyed to his home four miles distant. Strange symptoms soon manifested themselves. He recovered his consciousness, but began to swell and become much distended. This phenomenon commenced in the cervical region, and from thence the inflation of the subcutaneous tissue rapidly extended throughout the entire body. When I reached him, he was lying upon his back helpless, on account of the enormous distension, presenting an appearance similar to that of a cadaver, in which decomposition was far advanced. No part of the body had escaped. The eyelids were, of course, closed, a line only indicating the location of the eyes. The nose and lips were in a state of exaggerated and grotesque distension. His head, arms and legs were of gigantic proportions. The loose distensible tissue of the neck was inflated to such a degree that but little distinction of the natural neck was apparent. Percussion upon any part gave a tympanitic sound. The respiratory organs had long escaped complication; but progressive dyspnœa ensued, and became an alarming symptom. The emphysema had invaded the subcutaneous tissue of the glottis and epiglottis, and mechanical closure of the gates of life was threatened and death by suffocation imminent. Delays were dangerous, medication was useless; the cause being traumatic and mechanical, relief must be rendered with the same intent. By the violence origin-

ally received in the neck, a traumatic solution of continuity at some point of the mucous surface of the respiratory passages had been made, through which air had passed during the process of respiration, into the subcutaneous tissue of the neck, and thence had extended over the entire body. Air being in an abnormal situation, the indication was to let it out, give it vent. With an ordinary thumb lancet held between the thumb and finger, and thus acting as a guage, I made numerous punctures through the integument, first of the neck, and afterwards of other parts of the body; resistance at the several points of puncture being removed, escape of the contained air was inevitable. The incarcerated air issued with a distinctly audible and hissing sound. Partial collapse speedily took place, and with it relief of the dyspnœa. The tumefaction continued to subside, and in a day or two he had regained his normal dimensions, a smaller and happier, if not a wiser man.

DR. WM. PORTER:—I remember a case, the recital of which may add to the interest of those already described. Some years ago in hospital practice in London, a woman was brought into the accident ward with general emphysema. The history was that a few hours before admission she had been kicked just below the pomum adami by her husband. The symptoms were those of emphysema, and difficulty of breathing from obstruction. So far as I could determine, there was depression, or at least deviation in the line of the trachea. Tracheotomy was performed at once, and after the operation the patient breathed through the natural passage. It was found there was a fracture of one of the rings of the trachea, and before the operation it was evident that the ends had been bent inwards. It was suggested by an assistant that there had been a complete fracture, and there had been an angle formed of the cartilaginous ring, which had projected into the trachea. Whether that was the case, or whether there was an entire fracture, with the ends bent inwards, and so obstructing the trachea, we could not tell, as section at the point of injury had been made. The patient recovered.

DR. FAIRBROTHER asked if the emphysema described by Dr. Williams might not have occurred without any fracture of the bone at all? The case reported by Dr. Love bore no indication of fracture of any of the bones. It would be interesting to know if emphysema could take place without any fracture to the bone.

DR. DICKINSON:—I think not. No air can enter on account of the equilibrium of the atmospheric pressure. Emphysema is a Greek term corresponding to inflated or inflation in Latin, a result obtained by mechanical means, the introduction of air into

abnormal spaces. This cannot occur, except when atmospheric *equilibrium* in the part affected is disturbed. Pressure must exceed resistance, or there is an existing or possible vacuum in communication with the external air. These are indisputable facts, and each act of respiration is the result of the same conditions.

May 24th, 1879.

Erysipelas.

President Stevens said:—If there is nothing of greater importance to occupy the attention of the Society, I would like to state what I know about erysipelas, as I have recently suffered from an attack of that disease. The inflammation extended over the entire face and anterior surface of the neck and throat, the face vesicating at an early stage of the process. This experience has in a measure confirmed, and to a certain extent modified my views as to the efficacy of external treatment. I was attended by my friend Dr. Hughes, and in the main followed his suggestions, the leading remedy being the tincture of chloride of iron in large doses. I demurred, however, to the use of quinine, having some disagreeable reminiscences in regard to its effects upon my nervous system; the Doctor desiring to administer the quinine in fifteen grain doses, frequently repeated, and insisting that in such quantities it acts as a sedative, in addition to its normal action as a tonic. I objected, solely on account of my *real* or supposed idiosyncracy, and having, as I confess, some doubts as to the correctness of the theory.

I have for a long time been inclined to rely more upon internal or constitutional treatment for this disease than upon local applications. The use of tincture of iodine, cantharides, collodion and nitrate of silver I discarded long ago. I desire to be understood as opposed to all local treatment having for its object the arrest of the inflammation. The local treatment, in my opinion, should be only palliative, and tending to relieve or mitigate the excruciating pain. In my own case, I found that water, tepid, warm, or even hot, afforded greater relief than anything else. This may be applied in spray, or by means of cotton wool.

There is, happily, great unanimity of opinion in the profession in relation to the use of iron and quinine; but in regard to local treatment, opinions and practice differ very widely.

Dr. S. T. Newman said:—I think, sir, we must recognize erysipelas as a constitutional disease, and if so, we should make use of constitutional remedies in its treatment. But I differ with you in one respect, and that is the exclusion totally of local treatment. I have treated many cases of erysipelas during my professional life. At a very early period I learned there was very

great efficacy (I wish to emphasize the expression) in the use of hot water as a local application. I say hot water in contradistiction from warm water. I believe that warm water is both palliative and curative. I have had much experience with the disease in my own family. My wife has had many attacks of it; almost every year during a period of fifty years, and she has learned to treat herself. When she feels a burning sensation, she commences to use hot water, *so extremely* hot that it is difficult to handle the sponge with her fingers. The sponge is pressed upon the inflamed surface, and the temperature of the water is increased *pro re nata*. This procedure may be required for two or three days, but usually in twenty-four hours the disease will be arrested, without any internal or external remedies whatever. One of my daughters had an attack of erysipelas during the past week. I directed her to use hot water. She did so, and used no internal medicine, except a slight purgative, and the disease was soon arrested. Some twenty-five years ago I mentioned this treatment in this Society, and I remember Dr. Hammer especially took hold of it, and thought it was good treatment; and as there is now some prospect of our having the disease in our city more extensively, I think it well that others should try it. I would say I do not *exclude* constitutional treatment, but I rely on this hot water treatment more than on any other at the beginning. I want it understood that I advise constitutional treatment, especially when the cases have continued two or three days. But when the disease begins in a small spot with a burning, itching sensation, I believe hot water will *always* arrest it.

DR. A. GREEN mentioned the case of a child that was brought to him. The child looked sickly and had an abscess, but the mother would not allow it to be opened. In about three weeks the mother came again. The child was then in a most miserable condition, and he made an incision. It was an abscess on the periosteum. When opened, some pus was discharged. He did not hear of the case again for about a week, when the mother brought the child again. There were symptoms of erysipelas, and he ordered an application of carbolic acid and glycerine. The child got well. He thought they could not rely upon hot water in erysipelas all the time. He thought tincture of iodine was beneficial in some cases, but there must be constitutional treatment.

DR. NEWMAN said he thought Dr. Green had misapprehended what he said. He said that hot water, in its incipiency, would always be followed by good results. If the disease extended so as to cover a considerable surface, this treatment would not be so successful; it would only be palliative. At the beginning this treatment, in his hands, had always arrested the disease.

DR. ATWOOD said this subject was discussed many years ago by Dr. Newman. He had tried hot water to the exclusion of any-

thing else, pressing it on the surface. These applications were made at intervals of twenty or thirty minutes. Upon no occasion had the application failed. In addition to this, he had prescribed quinine, and had also arrested the progress of the disease by painting around the surface.

Dr. W. Johnston said, whenever this subject was brought up for discussion, he asked himself, whence is the origin of this disease? What substance taken inwardly or applied externally to the human organization produces this phenomena, which we term erysipelas? It was governed by specific and definite laws. Was it produced by some organism in the atmosphere? Was it something retained in the system? Was it the lowest organism that was known to live in the dead of winter? It showed itself on the dermoid tissue; in the most simple form it seems to confine itself to that tissue alone. If we could ascertain the direct proximate cause, we could then treat the disease with intelligence. This was not the first time he had heard of a specific for the cure of the disease. When the constitution was attacked by erysipelatous inflammation, characterized by a chill, could that be cured with a little hot water? No. In this disease, the muscular tissue, the deepest portions of this dermoid tissue, is involved. From experience, practitioners resort to quinine. This is reported to produce death to the lower organisms, and they might draw the conclusion that quinine had killed some organism in the system; or that the corpuscles of the blood were deranged, and that quinine rectifies this derangement, or if there is a deficiency in the corpuscles, quinine supplies it. There was some reason for purging the patient, for if the alimentary canal is filled with fæcal matter, that produces additional irritation, and it was best to remove it. He did not believe that hot water would cure that form of erysipelas. It was governed by very nearly the same laws that characterizes measles. There is another type of erysipelas known as the malignant. Some members will remember that several years ago, a form of erysipelas known as "black tongue" prevailed in New Madrid; the tongue was puffed up, its color black as ink, the deep tissues being involved. It was the height of folly to think this could be cured by washing the tongue. In many cases, the result of that disease was an abscess and rapid death. The only effective treatment was that addressed for the relief of the alimentary canal, and for stimulating the system with quinine and iron. In those days they used calomel, and supposed it acted on the liver. If any one cured the cases of malignant erysipelas, he was to be considered a fortunate man.

Dr. Hodgen inquired if the abscess was formed in the tongue.

Dr. Johnston said it was.

Dr. Maughs said:—I have attended cases of "black tongue." I have no doubt of the constitutional character of the disease. It is a blood disease, erythema, but I have no confidence in any local

application. I commenced practice about the time "black tongue" was prevalent in New Madrid, which was in 1843 or '44. Its history was wonderful, and wonderful reports were made respecting the "black tongue," exaggerated perhaps. Medical men then were not familiar with a remedy. Quinine had not then been used. In 1845 or '46, Charles Drury, of Danville, Mo., came to St. Louis to purchase goods, and met with persons from New Madrid doubtless. He returned home and had some strange form of disease—a swelling of the throat, and died. His wife took sick and died. His sister-in-law died also. The leading inhabitants were called in. It was an unknown disease. I was then reading about "black tongue," and I surmised it was possibly erysipelas. Eight or ten cases happened among the *elite* of the village, and were frightfully fatal. It passed through the country, till several cases came under my observation professionally. In 1852, I was practicing medicine in Fayette, Howard County, and "black tongue" there made its appearance. I was called to see a lady who was pregnant, and had been seized with the disorder; she aborted. I had been taught to give calomel and ipecac. That was the treatment up to 1845, '46 or '47. By the time this disease reached Fayette, other remedies had been suggested. I gave large doses of tincture of iron and quinine, and the disease yielded readily to them. My brother physician treated it with local applications, painted it and blistered it. I have seen these topical applications in a few cases, apparently arrest the progress of the disease on the skin, but it most generally made its appearance again. Local applications failed, but when I used muriate tincture of iron and quinine, my success was uniform. A very clever gentleman said he would as soon have—considering erysipelas as a blood disease—erysipelas as the itch. I gave large doses of iron and quinine. Under this treatment, the disease was arrested in 24 or 48 hours. I utterly refused to attend women in labor, while I was in attendance on cases of erysipelas. In 1853-4-5, I positively refused to wait on any woman in labor, and advised my friends to employ midwives, and not to employ any physician who had been in attendance on erysipelas. There is no form of disease that is more fatal than erysipelas to lying-in women, and nothing is more hazardous than for a physician while treating cases of erysipelas, to attend parturient women, even though using simultaneously such disinfectants as carbolic acid, etc.

Dr. Hodgen inquired, if in his experience, abscesses occurred in black tongue.

Dr. Maughs said sometimes the tongue became enormously large, and the patients sometimes seemed to be choked to death. His impression was, that the patients died before the abscess had sufficient time to mature.

Dr. Hodgen said it might seem peculiar, that he had repeated the same question to two gentlemen. The reason was that he

had never seen but one case of abscess in the tongue. It was certainly of rare occurrence. He mentioned a case of erysipelas that he had attended. He gave large doses of quinine and tincture of muriate of iron. The erysipelas spread from the patient's neck and over his body. He painted in advance of the progress of the erysipelas, but it continued notwithstanding to spread.

Dr. Rumbold:—I have had a considerable experience in the treatment of erysipelas. During a period of over eighteen months I had from seven to twenty patients suffering from this disease constantly under my charge. This happened while I was in hospital practice. At this hospital erysipelas had been very fatal; nearly every patient who was attacked with it died. At a meeting of a medical society, composed of the physicians of the hospital, I made the remark, during the discussion of the subject of erysipelas, that I thought that quinine and iron would save the lives of at least one-half of the erysipelas patients. Immediately after this I had an abundant opportunity to prove the correctness of my assertion, as every patient of this large hospital was placed under my care.

Instead of dosing them with calomel and jalap, or painting them with tincture of iodine, or drawing a line around the inflamed parts with nitrate of silver, or washing them with acetate of lead, as had been done by my predecessor, I gave them large doses of tincture of iron and quinine, and covered the inflamed parts with wheat flour. If the head was the part attacked, I had the hair cut off and then covered the head with flour; the flour was removed at such times as the patient complained of the heat, *i. e.*, the warmed flour was taken away and cool flour sprinkled over its inflamed surface, until it was from one half to one inch thick. Castor oil was the only cathartic that was given; this was not administered during the high febrile stage, nor was it given except when the bowels had been inactive for over 48 hours. During the time that I had this ward in charge not a single death occurred.

Dr. Atwood said he thought he had not been understood. He said that erysipelas was a constitutional disease. He administered iron in large doses with quinine. Hot water did good, as the patients would beg for its re-application.

Dr. Johnston said there was a single form of erysipelas which would get well without any treatment. An inflammation of the dermoid tissue, not characterized by chill or rigor, but simply congestion in the cellular tissue, would get well without iron or quinine, and without hot water. Nature seemed to throw the disease off. That was the form, probably, that some gentlemen had spoken of.

Dr. Newman:—I think I stated, sir, that I considered erysipelas as a constitutional disease, that it needed constitutional

treatment, but I differed with yourself in saying, you would repudiate *all local* applications. I still adhere to my position in reference to the use of hot water in the cases I have referred to. There are forms of erysipelas, I admit, such as referred to by Dr. Maughs and Dr. Johnston, that would not be amenable to the means I suggested. By those who have used it, tincture of muriate of iron is regarded as almost a specific. I have some doubt as to the proper name of this disease called "black tongue." I think this erysipelatous inflammation manifested on the skin is a local expression of a constitutional condition, and may not be erysipelas. We may have this disease to which Dr. Maughs referred without any eruption. In vindication of my friend Dr. Johnston about the use, I would say, ten or fifteen years ago, a committee was appointed by the London Medical Society to investigate the effects of calomel on the liver, and the report was adverse to it as a sialogogue; some investigations on that subject have been made during the present year, and it seems to me it has been demonstrated that calomel cannot be regarded as occupying a high rank as a hepatic stimulant. It is a purgative, and hurrys the bile through the bowels before it can be reabsorbed, and when found in the stools, the conclusion arrived at is *post hoc ergo propter hoc.*

President Stevens stated that he believed in local treatment as a palliative, and in constitutional treatment by muriate tincture of iron and quinine.

Dr. Johnston in reply to a question by Dr. Youngblood, said he gave calomel and quinine at the same time.

Dr. Youngblood expressed the belief that quinine might be carried through the alimentary canal without having any effect.

Report of the Committee Appointed by the St. Louis Medical Society to take Suitable Action in Regard to the Death of Dr. E. P. Scott.

Edward Pegram Scott, M. D., who died suddenly in our city on May 17th, 1879, was born on the 23d of January, 1800, in Dinwiddie county, Va. He studied medicine at the University of Pennsylvania, and graduated at that institution in March, 1821. He was a private student of the distinguished Drs. Physic and Chapman, and was a classmate with the late venerable and world-renowned editor of the *American Journal of Medical Sciences*, Dr. Hayes, of Philadelphia.

After leaving Philadelphia he practiced his profession for twelve years, when impaired health induced him to pass several winters in succession in the South.

In 1837 he was elected to the Senate of Virginia, where he served with much distinction for many years. In 1844 he was chosen president of that body and filled the honorable position

until 1849, when he resigned it. In 1841 he was commissioned by the Governor of Virginia and unanimously confirmed by both branches of the Legislature as Brigadier-General of militia, which office he held until the beginning of our unfortunate civil war, when he cast his destiny with the Confederacy. Being too old to engage in active service, he assumed command of the Home Guards in his neighborhood, and also rendered gratuitous medical services to the families of all soldiers belonging to the company commanded by his son, the late Capt. E. P. Scott. After the close of the war he resumed the practice of his profession, which he continued until 1873, when his health again failing, he removed to St. Louis, and from that time until his death he resided with his only surviving child of a family of seven—Mrs. P. G. Robert, wife of the Rev. P. G. Robert.

From 1833 to 1866, although not always engaged in active practice, he never severed his connection with the profession, and was often called in consultation by the physicians of his neighborhood; and on resuming practice in 1865, he secured the patronage of every family remaining upon whom he had attended in former years, which showed their great confidence in his ability.

He was for many years, by appointment of the Governor, a member of the Board of Visitors of the State institutions of Virginia. In 1831 he married Miss Wilkins, of Greenville County, Va., who died in St. Louis, while visiting her daughter, Mrs. Robert. Dr. Scott was the favorite nephew of Lieut. Gen. Winfield Scott, so long the Commander-in Chief of the United States army, and was upon most intimate terms of friendship with him until our unfortunate civil war separated them. In physical appearance and general bearing he manifested all the nobility of his distinguished uncle.

The deceased was not a member of this society, and was personally known to but few of us, but from his long connection with the medical profession, his great moral worth and marked mental capacity, we most cheerfully offer this token of respect to his memory. Few men now remain as living links between the great and glorious past of our country and the present age. One by one they are dropping off, and it becomes us to make some record of the compeers of Chapman, of Physic, of Rogers, of Mott, and a host of other intellectual giants who built up our profession in America.

Resolved, That a copy of this memorial be furnished the daughter of the deceased, Mrs. P. G. Robert, properly authenticated by our President and Secretaries, and the medical journals of St. Louis be earnestly requested to publish the same.

S. T. Newman,
Thos. Kennard,
Charles E. Briggs.

May 31st, 1879.

Fracture of the Femur. Reported by Edward Borck, M. D.

Mr. President:—I introduce to you to-night Hermann Krieger, a boy 11 years old. On August 26th, 1878, while playing upon the railroad track, and climbing upon a freight car, it was struck by another car. By this collision he was thrown off and in an unknown manner received his injuries. The laceration of the skin and soft parts was very extensive, beginning about the middle of Poupart's ligament and extending down to nearly the internal condyle of the femur, throwing the skin back to the extent of about three inches on either side, lacerating partly the sartorius and rectus muscles, crushing the femur in the upper third. The large blood vessels and nerves escaped injury. A second wound was made on the internal side of the same leg; a piece fully three inches long and one and a-half inches wide was, so to say, shaved off, exposing the bone down as far as the malleolus, partly stripping it off from its periosteum. This wound could not, of course, be brought together; it was, therefore, left to nature to do the repairing by granulation. I removed the small splinters of bones and the loose tissue, cleansed the wound with carbolized water, brought the parts into apposition, and closed the skin over it with pin sutures; used carbolized oil and lint; bandaged the whole limb from the toes upwards, using rubber bandages for the thigh; put the limb upon pillows, and left the boy alone for the first two days. In the meantime I had a good mattress made, and afterwards put the limb in the suspension apparatus, with coaptative varnish pasteboard splints, Dr. Otto Wahl assisting me. On the fourth day sloughing began to take place; all the skin sloughed away; suppuration was abundant; high fever and delirium set in, and the patient became exceedingly restless. I feared for his life. Treatment: Verat. virid., to control the heart's action; also quinine and ergot; pot. bromide and morphine to induce quiet, and good diet. The change was for the better in time of a week.

I will now undress the boy for examination. You observe the extent of the cicatrices; the boy walks well; it is a good result, and it is beautiful to observe the process of nature and the assistance we receive from her. This case could be passed for perfect, but I do not present it as such. If we measure with the plumb line you will find one half inch shortening. In about seven weeks after the injury was received the boy began to walk on crutches, but being disobedient to the directions of his mother, staying out too long in the cold, he was punished with an attack of erysipelas of the whole leg, treatment for which was rubber bandages and thirty centigrammes pot. iod. every four hours, by which the erysipelas subsided in a few days.

When the boy lay flat upon his back with the limbs extended, the upper fragment would tilt up, and thus remain; but by raising the body into a semi sitting posture, thus elevating the lower part of the thigh, it disappeared at once.

As stated, I made use of the suspension apparatus, though a little more bent than is usual at the knee, resembling a form nearer to the double inclined plane, which I think in this case was the only proper apparatus.

One should never confine himself to one exclusive method or splint, but select the one best adapted to each individual case. But when the suspension apparatus is employed you need extension as well. Could I have employed all the extension required in this case, no doubt there would have been no shortening, notwithstanding the loss of some bone; but the boy could not bear it, and he was very restless.

Now, could such good results have been obtained with the use of the long splint pulling the leg out? Could the boy have been more comfortable and have been kept quiet with it in his delirium, and the parts be kept in better coaptation by an additional long splint on the well side and a cross piece? I doubt it, unless you add the straight jacket.

There is one other point to which I wish to call your attention, and I will illustrate it by saying that some time ago I was called in consultation to see a case of a fracture of the femur. The attending physician had already put the limb up very neatly in the suspension apparatus, but there was some swelling. I called attention to the fact that the apparatus was suspended "vertically" from the ceiling, and hence there could be no traction; the point of suspension must be "remote," and the foot of the bed elevated, to allow extension and counter extension. When this was done the swelling disappeared in a few hours, which was caused by the bones over-riding.

It is not enough to put up a broken limb into a certain splint, and then be content and expect the splint to do all. It is the misuse of any apparatus that brings it into disrepute.

[A recess of a few minutes was taken, and the patient exposed his limb for examination].

Dr. Mudd:—The case is a very interesting one, and the result is very good. One point mentioned in connection with the suspensory splint I do not understand, that is with reference to the position of the leg in relation to the line of the body. He speaks as if he drew the leg to the opposite side. Now when a leg is in a splint and suspended, it deviates a little from the line of the body, to the right or left, and I think I have seen unfavorable results arising from the effort to keep the splint precisely in a line with the body. Its direction should be a little away from the body. The result here is probably as perfect as could be obtained. That angle is obtained by drawing the leg

too much towards the median line. The result is as good as could be expected from the character of the injury—the loss of skin is very great; it has been drawn down from over the abdomen, and from the pubes to the thigh. The injury below was great. In those cases produced by violence, such as we have in crushing by locomotives and heavy machinery, there seems hardly any limit to the regenerative powers of nature, and the question that generally requires our judgment, is not whether a part can be saved, but whether if saved it can be useful. We may often save legs and arms where the destruction is so great that the part will not be useful if it is saved. The question is not so much what we *can* save, but what we *should* save, and this case would have been discarded from what the doctor describes, but the results show good judgment. The doctor spoke of the dressing.

I have been pleased with hot water dressings where they can be applied. When kept at the right temperature, and applied with the frequency desired, I think it makes a good dressing. It combines some antiseptic properties, and favors the circulation. I remember now the case of a little boy who had a femur crushed in its entire length, and involving the knee-joint, in which the skin had been torn from the thigh, and in which the flaps had to be made from this tissue dissected by the violence.

We simply washed the injured parts, and with warm water applications we saved nearly all of it, and procured a good stump. In another case in which we lost part of the flap, we did not use warm water. I do not know whether that is the reason, but warm water does favor rapid restoration of the circulation, and thus the preservation of the parts that we wish to utilize.

Dr. Borck:—Dr. Mudd says the injured extremity must be drawn out a little, but not to such an extent as is necessary when the long splint is to be applied. This boy pulled it out a little. The main point is that the apparatus must be used properly. I could not make an extension in this case, because the patient could not bear it. You observe that there has been a shortening of half an inch in the limb.

Dr. Youngblood asked the doctor's opinion as to what would be the result in this particular case, supposing the boy lived to be eighteen or twenty years of age; whether the limb would still remain half an inch shorter than the other, or whether it would attain the normal length.

Dr. Borck:—I have known youths who had sustained fractures of the femur, and when they reached the age of twenty or twenty-one, not a single one on this account obtained exemption from military duty. I think this boy will be fit for military duty, and that the leg will improve.

Dr. Mudd being requested to give his opinion, said that when the injury occurs near the end of the bone, if there was much inflammation, in fact, in the majority of cases where there is not much inflammation, the growth of the bone is arrested in part or *in toto*. Sometimes the cartilages retain the power of growth, and we have an increased lengthening of the bone result. This does not arise so often from fracture as from chronic inflammation. So we have this shortening, or at least lack of growth in the future developed child. Frequently we see an increase in the length of bone. I have seen the tibia increase in length two inches, I think longer than the fibula, from increase of nutrition.

Dr. Briggs said he believed the bone in this case was fractured. There was considerable danger that the growth of the bone was blighted.

Dr. Mudd said he should think not. This was three or four inches below the trochanter. He thought it would probably grow.

Loss of Voice from Injury to the Throat.

Dr. W. Johnston said he had a case of a person whose throat was cut through the vocal cord. The wound healed, but the patient could only talk in a whisper. The question was put to to him (the speaker) will the patient regain his voice, and he replied that he did not know. If any gentleman present could add to his information he would like to know.

Dr. Mudd asked if the recurrent laryngeal nerve was severed.

Dr. Johnston replied he did not know, but he did not think it was cut through.

Dr. Mudd said that the recurrent laryngeal nerve enters the larynx behind the trachea.

Dr. Johnston:—There is no loss of sensation.

Dr. Mudd:—Do the cords move at all?

Dr. Johnston:—I have not examined.

Dr. Porter asked what was the evidence that the vocal cords were cut.

Dr. Johnston said that some one had looked into the trachea.

Dr. Porter:—It is rare that the vocal cords are severed, because they run in the plane of such incisions, and unless carried downwards and backwards, it would be at most a lateral incision, *along*, and not across the cord. If that is the case, it is likely the patient will speak again. But the laryngeal nerve may be cut, or the cicatrix may bind the cord, or the muscles may be

injured. On examining the patient, I think the doctor will find that the cords are not closed; one of the cords at least being bound to the sides of the larynx. If one cord remain in the median line, and the other moves across the median line to the fixed cord, he may have some vocalization. But if there is a space in the larynx, the cords in consequence will not move. If the cord is cut across the patient will not speak again clearly, if at all.

Dr. Johnston :—Do I understand that with a laryngoscope you can see that far down?

Dr. Porter said it was possible with the laryngoscope to see even the bifurcation of the trachea.

Dr. Johnston said he had made only external examination.

Dr. Rumbold :—Can the patient make a distinct whispering sound?

Dr. Johnston :—It is a hoarse whispering sound.

Dr. Rumbold asked if the patient in breathing made an inspiratory sound.

Dr. Johnston :—I think not.

Dr. Rumbold :—It is altogether likely that the cords are impaired by the cicatricial contraction of the wound, which will prevent the cords from approximating, and thus prevent vocalization.

Dr. Johnston :—Do you think you could decide this if you examined him with the laryngoscope?

Dr. Rumbold :—Yes sir, I could. I have seen but one case of this kind; he did not recover. I made the examination after death.

Dr. Porter :—I never met a case where the vocal cords were cut, though I have seen several instances where the larynx was cut, but section of the vocal cord is a rare occurrence; the only one I can remember is one in which the patient was stabbed with a sharp-pointed knife through the larynx; it entered at the right side and passed through the right vocal cord, partially severing it. In that case there was union, but of such a nature that the cord was of little service. The cicatrix bound it to one side, preventing its meeting in the median line; there was space enough for the air to pass through without moving the vocal ligaments. If you have from this cause a separation of more than a-fourth of an inch, when vocalization is attempted it is not likely that your patient will regain his voice.

President Stevens mentioned the fact that some twenty years ago Dr. Wetmore, now of Waterloo, Ill., made a number of experiments by cutting the vocal cords of cats, dogs and other animals.

The Obstetrical Forceps. By G. M. B. Maughs, M. D.

We are induced again to give our veiws of the use of the forceps, from reading the remarks of Dr. Hamilton of Falkirk, Scotland, made before the Edinburgh Obstetrical Society at its April meeting, and also to anticipate the views of English obstetricians at the May meeting of the London Obstetrical Society, in which the forceps was the subject for discussion. These views of England's most advanced thinkers will most likely be published in the June number of the *Obstetrical Journal* of Great Britian and Ireland, and will show that England is no longer under the baneful influence of Denman's teachings. In this, all who have a heart to feel for helpless women in the prolonged agonies of unavailing labor, may truly rejoice.

Any consideration of the use of the forceps, must necessarily regard: 1st, The indications for its use. 2d, The form of the instrument. 3d, Its powers or forces. 4th, The periods in which it may be applied. 5th, Its benefits and dangers.

The Indications for the use of the Forceps.—These are numerous. We shall, however, only mention those most frequently met with: (*a*,) Prolapse of the cord. (*b*,) Hemorrhage. (*c*,) Convulsions. (*d*,) Large heads. (*e*,) Contracted pelvis. (*f*,) Unfavorable positions. (*g*,) Rigidity of os uteri. (*h*,) Rigidity of perineum. (*i*,) Feeble or ineffectual uterine contractions.

In prolapse of the cord, which nearly always concerns the second or expulsive stage of labor, the forceps is the only remedy to be thought of. All efforts to return and ensnare it on any part of the child, or dependence upon the postural method, are but trifling in the presence of a grave difficulty, and may result not only in disappointment, but in the loss of the child. In all such cases, as soon as the accident is discovered, apply the forceps and deliver immediately, and this can in all ordinary conditions be done before the child can possibly perish. We have never met with a case of prolapse of the cord, in which we did not save the child by immediate delivery with the forceps. It is the only thing that should or can be done with certainty of success.

In ante partum hemorrhage, if the os be dilated, or dilatable, the membranes ruptured, and the head presenting, the immediate use of the forceps constitutes the sheet anchor of hope. Of course if the head has passed through the superior strait, is in the cavity of the pelvis or inferior strait, all are agreed upon the use of the forceps in this grave accident, but if it is at the superior strait, with the mouth of the womb not fully dilated, many would advocate the introduction of the hand, seizing a foot and turning the child. This should never be done if the forceps is

at hand, and it should always be; it should be immediately applied. Never turn away the vertex for any other part. If this be engaged in the brim, that is, if the biparietal protuberances be within the linea ilio-pectineal line, and the os dilated to two inches in diameter, the forceps can be readily applied, and as its presence takes up absolutely no space, the head is made to dilate the os just as it would do in time, were hemorrhage not present. Quite happy are the results, compared with the more formidable introduction of the hand, turning and delivering by the feet, as is so often recommended in such cases.

Convulsions.—Bleed the patient, give a stimulating enemata, pass the catheter, give chloroform, and apply the forceps. In convulsions we would give chloroform before applying the forceps, but never otherwise.

The cases of large heads and contracted pelvis are practically the same. The compression force of the forceps if properly applied with traction sufficient to aid in overcoming the resistance, is happily quite adequate in all ordinary cases to adjust the size of the head to that of the canal through which it has to pass.

Unfavorable Position.—In the fourth and fifth positions of a vertex presentation, the timely application of the forceps secures the rotation of the occiput forward, and saves the mother a vast expenditure of force. Fortunately in nearly all of these fourth and fifth positions, the occiput will be eventually rotated anteriorly until it comes in front of the spines of the ischium, where, falling under the influence of the anterior lateral inclined planes of the pelvis, it will be brought to the pubis. But this vast rotation of the occiput from the sacro-iliac junction to the pubis, and the opposite rotation of the forehead or bregma from the acetabulum to the hollow of the sacrum, nearly half a circle, requires so great an expenditure of force that by the time it is accomplished, and the head comes to bear upon a rigid perineum, the woman is too much exhausted to accomplish its distension, and now, after having remained stoically indifferent to her protracted sufferings, we find ourselves compelled to apply the forceps to extract a dead child after irreparable mischief has been done the unfortunate mother, and join the cry of behold the injury of the forceps, not thinking that it is not the forceps, but our own ignorance in not applying them sooner, that has done the mischief. Such practice is criminally negligent of the highest duties of the physician, which are to save life and suffering. I am frequently called to witness such conditions, and never without heartily wishing the doctor in attendance could be passed through just such a labor, with the happy reflection that if it killed him, as it most likely would do, humanity would be the gainer.

In occipito-posterior positions—that is, where in neglected fourth and fifth positions, where the forehead, falling under the influence of the anterior lateral inclined planes of the pelvis, has been rotated to the pubis, and the occiput has fallen into the hol-

low of the sacrum—the forceps are invaluable. Here the occiput is driven down against the os coccygis and posterior perineum, while space in the antero-posterior diameter is lost by the broad forehead not being so well adapted to the pubic arch as the sharper occiput, and then the head must be delivered in these cases without extension, but by constantly increased flexion, until the occiput subtends the entire fearfully distended perineum and passes out of the vulva. In all this there is, besides the danger to the perineum, great loss of force from its misdirection, as well as in enforcing extreme flexion until the head is driven through the outlet contracted by the loss of space incident to the mal-position.

The forceps in these cases enable the operator to supply the extra force required, and thereby save the energies of the mother. Also to pull the forehead against the sub-pubic ligament and the occiput off the endangered perineum. Of course, in this case, as in all others, the blades should be applied to the sides of the child's head and parallel with its occipito-mental diameter, and traction made in the direction of the axis of the part of the obstetrical canal through which the head is passing, in this case forwards and upwards. The convex edges of the blades in this case are towards the occiput instead of the forehead, and require that the blades be passed well back against the perineum to insure complete application.

Rigidity of the Soft Parts.—In many cases the woman has quite sufficient strength to deliver herself but for the unusual rigidity of the os. Either this is so unyielding that hours of suffering are required to dilate it from two to four inches, or the rigid valve-like anterior lip hangs over the occiput, preventing complete flexion, whereby the occipito-frontal diameter of four inches is substituted for the cervico-bregmatic of three and a-half inches, or the posterior lip hangs upon the anterior portion of the head, so intensifying flexion that the occiput is driven against the posterior perineum, preventing extension, the only movement whereby the head can be delivered. All this delay, with its consequent danger to the mother and child, is prevented by the timely use of the forceps.

In all cases it were well if the os were fully dilated before applying the forceps. But the assurance of this fact should never deter us from using them until the woman is injured or the child lost by unnecessary delay. In all cases where such threatens to be the case, the forceps should be used, though the head be in the superior strait and the os not dilated more than two inches.

Last winter we were called to Collinsville to see a woman who had been forty-eight hours in labor, the waters being long drained off, with the head at the superior straight and the rigid, unyielding os not dilated more than two inches. She was attended by two most excellent physicians, who, though accustomed to the use of the forceps, were deterred from using it here by the teachings

of nearly all the "text books." The woman showed signs of exhaustion; increased heat; the pulse had run up to 100. She was greatly alarmed lest she and her child should perish. We applied the forceps, and delivered her in thirty minutes of a living child; the mother did well, never having a bad symptom.

Now why not use the forceps in every such case where nature proves inadequate to the timely and safe delivery of the woman? It is manifest that if the uterine forces were greater, or the resistance less in every such case, the head would, or might be, driven through the os and the child expelled. But just here is the difficulty; the uterine forces are not sufficient to overcome the unusual, and we may say to the uterus, unexpected difficulty, and accomplish this. The forceps just make up this deficiency, and by supplementing, by *vis a fronte* the deficient *vis a tergo*, accomplishes by nature's own method, dilates the os with the head—just what nature strives in vain to do.

Rigidity of the Perineum, so often met with, causing unexpected delay in the fourth period of the second stage of labor, would not of itself, in scarcely any case, be sufficient to prevent the woman delivering herself without undue loss of time, but it is nearly always associated with undue resistance of the os, and by the time the head overcomes this and arrives at the floor of the pelvis, the woman is so much exhausted that this last call upon her resources quite breaks her down, requiring the most frequent application of the forceps at this point. Of course if delay occurs here the forceps should be used—not after waiting until the head has rested immovable upon the perineum for six hours, as taught by Denman. Wait not six hours, nor one, but resort to the forceps as soon as it is manifest the head is not advancing, or if advancing, doing so so slowly that it is evident the woman and child might suffer from unnecessary delay. Experience has taught what *a priori* might be inferred—that delays at this point are extremely dangerous to mother and child; dangerous to the mother because of the exceeding sensitiveness of the parts upon which the pressure is exercised; dangerous to the child because at this time it is mostly out of the womb, which is correspondingly contracted, interrupting the placental circulation. And to permit the occurrence of unnecessary delay here would also be the less excusable, as the merest tyro can apply the forceps at this point without difficulty or danger; and yet, under the waiting on the resources of nature doctrine, thousands of women have been permitted to endure the tortures of this condition for many weary hours, until their offspring had perished and their own lives endangered or sacrificed, when they could have been safely delivered in ten minutes. *O tempora! O mores!* Is the wail of helpless woman of no moment? Of all our race are her sufferings alone to be disregarded because, forsooth, there is some physiology in her sufferings?

Feeble Uterine Contractions.—This is, perhaps, of all oth-

ers, the most frequent cause of delay in labor, protracted second stage of labor, through which the unfortunate, unaided woman drags through weary hours or days in fruitless efforts to deliver herself until the child is dead, and the mother in a hardly less unfortunate condition. In these cases the forceps reaches its highest triumph, and to withhold it is a sin against God and humanity. When the gross clouds of ignorance that have heretofore darkened our art shall have given way to a knowledge of the mechanism of labor, the dangers of delay, and the ready and safe means of relief by making the forceps a blessing instead of a mockery to parturient women, such cases with their dire consequences will be unknown.

The Form of the Instrument.—The long, double-curved forceps is the only one that should be known. All others are but relics of the infancy of the art, and invaluable as would be the short, straight forceps were there none other; it is infinitely worthless compared with the long, double-curved instrument, and is only retained in use through ignorance or want of skill of operators.

The short or straight forceps can only be used with any show of scientific knowledge when the head is low in the cavity of the pelvis, and is utterly worthless in all high operations, and as the long double-curved forceps is equally suited for such cases as the short ones may be used in, and are indispensable in cases where the short, straight forceps cannot be used, it follows that this alone is necessary. And while the modifications of the long forceps are almost indefinite, the only one that possesses all the advantages of the instrument with none of its imperfections or objections, is Hodge's forceps. It is perfect in every particular and leaves no disideratum.

The Powers or Forces of Forceps.—It may be used as a tractor, compressor or lever, but all other properties are of but little moment, in the great majority of cases, compared with its power as a tractor.

It is a pair of artificial hands to seize and pull down the head just as we would do with our hands were they long and delicate enough to take a like hold on the head. And we may add in the hands of a skillful operator, almost as sensitive, being but little less than a continuation of the operator's hand, carrying to his sensorium almost its exact position in relation to the parts of the mother and the head of the child, as also the work it is doing.

In perhaps nine cases out of ten we need use it as a tractor only, using only so much compression as is necessary to keep it in exact apposition with the head of the child, with which for the time it constitutes as it were a single body.

In cases of large heads or contracted pelvis the forceps may be used most advantageously as a compressor, whereby the head

of the child may be so moulded as to make its passage practicable in cases where it would be otherwise impossible to extract it without craniotomy. It is a double lever with the fulcrum at the joint. And in using it as a lever this fact should never be lost sight of—that the joint of the instrument should be made the fulcrum and not the soft parts of the mother, as is ignorantly and dangerously stated to be the fulcrum, and so used by Dr. Hamilton, of Falkirk. The lever power of the forceps is, however, of comparatively small import and the cases are but few where it might not be dispensed with. When it is used the movement should be made slowly and cautiously, not faster than the sides of the head can follow, and not allowing the blades to move upon the scalp or the soft parts of the mother to become for a moment the fulcrum.

The Periods of Labor in which the Forceps may be Used.—It may be applied in the first period of the second stage while the head is yet in the os uteri and superior strait or in the second period where the head is in the cavity of the pelvis, or in the third period when the head is in the inferior strait, or during the fourth period when it is detained only by the soft parts of the mother. Thus it may be safely used during the entire passage of the head from the abdominal cavity until its deliverance through the vulva. Of course its application is not equally easy, or its use equally void of possibility of mischief at all these points, but like the passage of the male catheter, the difficulties and possible dangers increase just in proportion as we recede from the surface, being easiest and least possible of mischief when the head is resting upon the perineum, most difficult and most liable to abuse when the head is within the uterus, at the superior strait. But is this any reason why we should not use it at this time and point if indicated? What would be thought of the surgeon who would withhold from a patient whose life was endangered by a distended bladder, the use of the catheter because he was so unfortunate as to present a difficulty at the prostate instead of near the meatus? And yet he would be quite as reasonable as the accoucheur who would endanger the life of the child or mother by unnecessary delay in using the forceps, because the obstruction was at the superior instead of the inferior strait.

Its Benefits and Dangers.—As it is the most conservative of obstetrical operations, always intended to benefit the mother and child if this be living at the time, its dangers might almost be left out of the question, as its use necessarily involves absolutely no danger at all, except in the hands of the rash and ignorant, and such should never be at the bedside of the lying-in woman, and should they unfortunately get there, are as likely to do mischief without as with the forceps.

It is not by withholding the forceps from such that we can protect women in labor, but by absolutely denying them access

to the sick room, by seeing that none enter the profession who are not well qualified to practice this, the most important department of medicine, and with the facilities now offered by the schools for obtaining proficiency in the obstetrical art, it is hardly to be supposed that any graduate of a respectable school is either rash or ignorant in this department. Consequently, as we are not talking to or writing for either the rash or ignorant, but to an educated profession, where all are alike conscientious and more or less skilled in the use of the forceps, we may, as before stated, readily leave out its supposed or possible dangers—dangers far more *in posse* than *in esse*. And yet this is a very talisman for the trusting owls who have heretofore sat for hours by the bedside of a delicate, sensitive, helpless, suffering, lovely woman in the agonies of an unavailing labor without giving her the unspeakable benefits of a speedy, safe and easy delivery by the forceps. Such an one may possibly console himself with the so oft repeated caveat for ignorance that "meddlesome midwifery is bad." So it is, but the indecision and hesitancy of fools is worse. Such have also for their neglect, another answer that "labor is a physiological process," and that we should therefore trust to the efforts of nature. It is; so also is digestion, and yet what ape would sit for hours by the bedside of a patient suffering the agonies of colic caused by a beef steak or raw turnip, consoling himself and his patient with the assurance that digestion is a physiological process which nature, a little at fault just now, will finish up after a while. Of course no doctor, not even the most ignorant pretender, would act thus, and yet the two processes are alike, in that they are perverted or obstructed conditions of a natural process. In either case, while all went well, no one but a fool would interfere, but where all went wrong, we might expect that even a fool would attempt relief, and as in one of these disordered conditions, nothing is so self suggested, safe or easy of application as the forceps, we might naturally look for its use even here. But has it come to this, that the accoucheur is the only one of our divine profession who utterly ignores our lofty mission, which is to save life and alleviate human suffering? or is helpless suffering woman the only one of our race who is excluded from the blessings of our high calling? And is her life and that of her unborn child of such non-importance, that we are to turn a deaf ear to her prayer for help?

Just in proportion as the forceps is neglected, the sickening, deadly operation of craniotomy is more frequent. If we fail to use it, the cranioclaust or crotchet must make up for our failure.

In the practice of Dr. Clark, the forceps was used fourteen times only in 10,000 cases, or one in 728 cases, while craniotomy was resorted to forty-nine times, or one in 248 cases.

The necessarily deadly crotchet being three times as popular as the harmless forceps with this distinguished accoucheur. In the practice of Dr. Collins, the forceps was used twenty-seven times

in 16,654 cases, or once in 617 cases; while craniotomy was performed 118 times, or once in every 141 cases. In the practice of the two Ramsbothams, father and son, in 19,439 deliveries, the forceps was used thirty-nine times, or once in every 498 deliveries, and the perforator 25 times. In the practice of Seibold, of Berlin, the forceps was used 300 times in 2,093 deliveries, or once in every seven cases; while the perforator was used only once in the 2,093 deliveries. And it is quite within my recollection of midwifery practice in St. Louis, that in difficult head presentations, the Gordian knot was cut with the perforator and crotchet.

The opponents of the early and frequent use of the forceps refer with seeming triumph to the part, that in British midwifery practice, one woman in every twenty deliveries with the forceps died; of course they did. They died not because they were delivered with the forceps, but as we shall incontestably show, because they were not delivered earlier. They died because through a slavish adherence to the authority of those whose ignorance and want of skill. Denman & Co. should have prevented their ever being consulted; their labor was allowed to linger on until fatal inflammations were lighted up. They died because their blood was poisoned by the absorption of decomposed secretions from the heated inflamed genital tract. They died because their exhausted vital forces were no longer able to bear up under the long continued depression of an unavailing labor. They died because of shock to heart and brain, caused by withholding the relief that should have been extended to a very dog.

These opponents with like seeming triumph refer to the fact, that one in every four or five of the children so delivered, also perished. Of course they too perished, not because they were delivered with the forceps, but because the accursed doctrine of Denman withheld the life saving forceps, until the children were already dead or in a dying condition. Had the forceps been used, as it should have been hours before, the children and mothers might all have lived. The death of all these mothers and children is justly chargable, not to the forceps, but to its being withheld until too late.

The cry of meddlesome midwifery is bad, has been repeated from the days of Denman and Blundell to this, by every ignoramus who has sat for hours by the side of helpless woman, permitting her to suffer in unavailing labor, until her offspring was dead and herself but little better. They died because the attending physician through a criminal ignorance was unable to give the necessary assistance, or through a blind adherence to an age of ignorance, he feared to do so, and remained trusting in the resources of nature long after these had shown themselves inadequate to safe delivery, when the long deferred assistance came too late. Thanks to the march of science, as we predicted twelve years ago, the days of this ignorance have been fully numbered.

"Other kings have come to reign over Egypt who knew not Joseph."

Perhaps the most triumphant vindication of and argument for the frequent and early use of the forceps, and their utter harmlessness in skillful hands, is given in the practice of Dr. Hamilton of Falkirk, who though utterly ignorant of the mechanism of natural labor, upon a knowledge of which all truly scientific operations must be based, and with quite an imperfect instrument compared to Hodge's forceps, (Zegler's straight forceps) and with this applied, as it never should be, with blades antero posteriorly, delivered 190 children with only two deaths, or a little over one per cent. None of the mothers were lost.

The death of her Royal Highness the Princess Charlotte was caused by a rigid adherence to the non-interference practice—"trusting to the resources of nature" long after these had broken down. "Her labor commenced by the discharge of the liquor amnii at 7 o'clock Monday evening; the pains continued through the night and the greater part of next day—sharp, soft, but very ineffectual. Towards evening it began to be suspected that labor might not terminate without artificial assistance, and Dr. John Sims (the narrator) was sent for. He arrived at 2 o'clock on Wednesday morning. The labor at this hour was advancing more favorably, and to the end of her labor the progress was uniform, though very slow, and there never was room to entertain a question about the use of instruments. About six in the afternoon the discharge became of a green color, which led to a suspicion that the child might be dead; still, to give assistance was quite out of the question, as the pains now became more effectual, and the labor proceeded regularly, though slowly. The child was born, without artificial assistance, at 9 o'clock in the evening. Attempts were made for a good while to reanimate it, but the heart could not be made to beat even once. The placenta was taken away by introducing the hand into the uterus half an hour after the delivery of the child." Her Royal Highness followed her child a few hours afterwards.

Here was a lovely woman, the idol of a nation, permitted to struggle for fifty hours in an unavailing labor, whereby her life and that of her child were sacrificed, and the wise owls in attendance thought there never was room to entertain a question about the use of instruments. Wonderful! Now, had her Royal Highness been an obscure pauper in the darkest alley in St. Louis, and attended by any well-informed first course student, she would have been delivered with the forceps on Tuesday, and had her attendant been a physician of any experience she would have been thus delivered on Monday night, and her life and that of her child would have been saved.

Does not any one see that all that was wanted here was to supplement the deficient *vis a tergo* by a *vis a fronte?* A slight pull with the forceps would have done this. Would to God her

Royal Highness were alone in this tragic end, but the figures referred to show that thousands of women and children have perished in like manner and for the same reason. Why wait in such cases fifty or ten or five hours? As soon as it became manifest that labor was not progressing—that is, that the child's head was not advanced during the pains, or if advanced, this was so slow that a dangerous delay was inevitable, the forceps should have been applied and delivery effected.

In this or a like unfortunate one, perhaps the most rigid adherent of the do-nothing doctrine would now admit the forceps were indicated, should have been used. But let us suppose a case in which they are not absolutely necessary in order to save the life of mother or child. We will suppose that the head is not absolutely arrested—that it does advance with each pain; now suppose that this advance with each pain is one-sixteenth of an inch, and it is frequently not greater in a labor not considered lingering, and in the case of the Princess Charlotte could not have been one-fourth of this—and suppose a pain to occur every five minutes, and admit that we could determine that it would continue this progression until delivery was effected; at this rate the head would be delivered in five or six hours, a not unusual duration for the second stage of labor. Now suppose by simply wishing it to do so we could quicken its progression so that instead of one-sixteenth of an inch it would move one-half inch every eight minutes, or at each pain, this would be eight times as fast, and would terminate the labor in less than an hour. Is there an accoucheur who would not make the wish? Then, as we can apply the forceps in many of these cases nearly as readily and as harmlessly as wish, why not use it?

Now let us suppose it used in a case not nearly so tardy as this—in a case where it was not at all necessary—in a perfectly natural labor, what possible harm would be done? Its application is, as we have seen in such cases, entirely without pain or injury to the mother or child, and the most that can be said against its use in such cases is that it would be an unnecessary interference with nature; but this objection carries with it no mischief, while its neglect or too tardy use is big with danger to mother and child. Of course we would not use or recommend its use in such cases, and yet it is far better to use it unnecessarily in ten or a hundred cases than fail to use it in one such case as that of her Royal Highness the Princess Charlotte.

As stated, while in skillful hands it is harmless in the great majority of cases in which it is indicated, its possibility of doing mischief is not ignored in all cases or points at which its use is demanded. When applied at the superior strait and within the uterus, its use requires great caution. I have seen mischief done with it here, but I have seen mischief done with castor oil. In cases of disproportion between the head of the child and pelvis of the mother, it occupies a border ground between conserva-

tive and sacrificial midwifery. In some of these unfortunate cases where great and long continued force has to be used, the child may be destroyed and the mother injured. Here we are sometimes compelled to press too close upon the danger line; but this can be no objection to the forceps, as its only alternative in this case is the deadly cephalotribe or bloody perforation; with the forceps we struggle anxiously, fearfully, painfully on this border land, knowing that if we lay it down we shut the gates of hope against the child, as we exchange it in such cases only for the craniclaust or perforatus. In such cases the forceps may destroy the child, its alternatives are intended to do so. It may also in these cases injure the mother, but is far less likely to do so than its alternatives, the crotchet and cephalotribe.

We hold it as a rule of practice to use the forceps in any case, in every case, when, in the second stage of labor, the head fails to advance during the pains, or advancing does so so slowly that the labor threatens to be prolonged to the injury of mother or child, without waiting for this injury to occur. More than this, we carry the war into Africa by freely declaring and teaching that the physician who permits his patient to linger unnecessarily in the second stage of labor, when he could prevent it by the timely use of the forceps, is reprehensible in that he thereby endangers the well-being of those entrusted to his care.

I use the forceps in every three or four cases, and have never regretted having used it even in a single case, but have often regretted not having used it, or that I had not used it earlier.

I have applied the forceps some twenty times at the superior strait. In two of these cases the head was not engaged or fixed in the inlet or brim, and had to be held down by an assistant. One of the children in these twenty cases was known to be dead before the forceps was applied, and one was lost by delay in delivering the shoulders after the head was delivered. In some eight of these cases the os was not dilated more than two inches. None of the children perished because of the forceps delivery. All the mothers did well. I have never delivered a woman with the forceps who died from, by or in connection with her accouchement, and consequently have most certainly killed none with the instrument.

I have not, however, been so fortunate as regards the perineum as Dr. Hamilton, who says in all his forceps operations he never had the skin of the perineum broken. I more than suspect that Dr. Hamilton never saw this because he never looked for it. I am sure, unless the women in Scotland are differently constituted from those in St. Louis, or their children are smaller, that tears could have been found in several of his 190 cases, if they had been looked for.

While the forceps, with care, is calculated to protect the perineum, I have not always been able to prevent slight, though—with the exception of a single case of occipito-posterior position,

and this not through the sphincter—unimportant tears. Nor do I believe it is always possible to prevent this accident with or without the forceps. Full anæsthesia at the time the head is passing through the vulva more surely protects the perineum than any other means; but it is not always possible to produce the full effect of chloroform at the exact time, so that even with this powerful adjunct there will still remain an occasional perineal tear of greater or less extent.

We have given our indications for the use of the forceps to be in all cases where further delay would endanger the mother or child, in cases where such delay can be prevented by the forceps. In order the better to appreciate the contrast, and to understand why mothers and children die in forceps cases in British midwifery practice, will well give the indications for their use, as held by England's great lights on midwifery.

As stated by Ramsbotham, Hunter, Denman and Osborn trusted cases almost entirely to nature. Osborn, in giving the symptoms requiring or justifying the use of the forceps, says: "All the powers of life are exhausted, all capacity for further exertion is at an end, and the mind as much depressed as the body. They would at length both sink together, under the influence of such continued but unavailing struggles, unless rescued by art." Of what possible service would art be to a woman in this condition? What has he imagined the forceps to be? for we cannot think he ever saw one. He must have thought it an instrument for disembowelling women. And are we to wonder that some of the women and children delivered with the forceps died? Indeed, it is hard to believe that any of them survived when these indications for its use were allowed to supervene." And yet Osborn was a great light!

Denman says: "As long as the efforts of the mother continue with any degree of vigor, there is always hope that she will deliver herself without artificial assistance;" that is, as long as she has life enough to feel a pain, she must be left to her own efforts. Denman, again, as a rule of practice, says "that the head must rest as low as the perineum, for six hours, though the pains should have ceased for that time." How many women or children would survive this test?

Ramsbotham gives, as rules for the use of the forceps, "that the second stage shall have lasted twenty-four hours." Does not every one know that many women would die in much less time than this? Again, "that the head must have remained impacted in the pelvis for four hours before, we are justified in using the forceps." And yet we all know that the most extensive destruction of the soft parts have been produced in less than half this time. Again, "If the head advances at all, we must wait; but, if no advance has taken place for many hours, provided we can feel an ear, we may apply the forceps."

Again, he gives as symptoms of exhaustion, justifying the use

of the forceps, "that there is a peculiar olive-colored discharge from the vagina, hurried breathing, anxious countenance, the eyes dull and sunken in their sockets, with a dark appearance around them; the cheeks pale, sallow, or flushed in patches—such an appearance as it has in low fever. Vomiting is also present with the ejection from the stomach of a blackish or coffee-ground matter. If with these symptoms there have been two or three rigors, and if on pressing the abdomen there is great tenderness of the uterus; if there be green discharges; if there be preternatural soreness of the uterus with heat and tumefaction of the vagina; if the head has been locked for four hours, and made no progress for six or eight hours; if the patient be vomiting a dark coffee-ground like matter; if there be hurried breathing, with delirium and coldness of the extremeties, the delivery must of necessity be effected—if the head were within reach of the forceps."

But so long as these symptoms are not present there can be no necessity for instrument or aid, although the case may have lasted considerably beyond the specified limit. If such constitute the indication for the use of the forceps, can we consider it a blessing? Why, to save a women from the accession of such almost necessarily fatal symptoms, gastro-hysterotomy would be a blessing. And yet, in this greatest of English works on midwifery, Ramsbotham's, we are told to sit idle by the bedside of a woman until she is almost or quite dead, merely waiting on the resources of nature, rather than terminate her sufferings, save her life by means the most easy, speedy, and safe—the forceps. Is it, we again ask, any wonder that some of the women and children died after forceps delivery under such circumstances? Or, is it not a marvel that any were saved? And yet we are told by these men that the forceps is a great boon to women in labor. From such blessing as it was in the hands of those who withheld it until the woman was dying, may the good Lord deliver us.

As to the manner of using it, a few general rules may be given, subject, of course, to modification to meet extraordinary conditions.

Always use Hodge's forceps.

Always place the woman on her back.

Never give chloroform when the forceps are to be used, unless convulsions are present or imminent.

Always first pass the catheter.

Always pass the left or pivot blade first, whether it be pubic or sacral.

Always apply the blades to the sides of the child's head, and parallel with the occipito mental diameter.

Never apply the blades antero-posteriorly, that is, one blade to the bladder, and the other to the rectum, as is constantly done by so distinguished an ignoramus as Dr. Hamilton, of Falkirk.

But it may be asked if we are always to apply the blades to the sides of the childs head, how are we to observe this last rule in transverse positions? Let me see.

Let us suppose it to be an occipito-anterior position, with the occiput somewhere in front of the left sacro-iliac junction, say at the middle of the linea ilio-pectineal line, the seventh position of some authors. Introduce the four fingers and palm of the right hand into the left posterior portion of the vagina, pressing back the left posterior perineum. This carries the fingers above the pelvic brim; pass them along the left sacro-iliac junction into the os uteri, and over the left posterior aspect of the child's head. This can be readily done during labor, even in a primipara without inflicting pain, as the hand, not including the thumb, is but little wider than the blade of the forceps. Now, holding the pivot blade in the left hand over the right thigh of the mother, pass its convex surface along the palm of the hand until the point passes between the fingers and the left side of the vertex; now keep the concave surface of the blade in contact with the convex surface of the child's head until it passes over the left biparietal protuberance, which, falling into the finestrum of the blade, causes the forceps to take up no room. This blade is now applied to the left side of the child's head, and parallel to its occipito-mental diameter. To pass the blade in this manner requires that while the blade is passing over the side of the child's head the handle be brought down rapidly with a spiral movement, until the shank presses upon the left posterior commissure of the vulva. The blade is now in front of left sacro-iliac junction, and its concave surface firmly placed against the left convex surface of the child's head.

Now before applying the other blade, using this as a vectus or lever, rotate the occiput anteriorly and to the right, until it is at or anterior to the left acetabulum; now pass the fingers of the left hand in like manner with their backs to the right side of the vagina, behind the right acetabulum, that is, with their palmer surface looking directly toward the applied blade of the forceps, and holding the right blade of the forceps in the right hand with the hook over the left thigh of the mother, slip the convex surface of the blade along the palm of the left hand until the point passes between the fingers in the mouth of the womb and the right side of the vertex, bringing down the handles with a spiral turn as the blade passed between the right acetabulum and head of the child, until the right parietal protuberance falls into the penestrum of the blade, when it will be found in exact opposition with its fellow, and usually locks without difficulty. The blades are now applied to the sides of the child's head, and parallel to its occipito-mental diameter. The shanks are pressing back the perineum with the lock at or within the vulva, and the pivot looking towards the mother's left groin. That is, the forceps is applied in the direction of the right oblique diameter of the

mother's pelvis. If the head be in the cavity of the pelvis, the forceps is applied in the same manner. Any difficulty in getting the second or right hand blade between the ramus of the eschium and head of the child, is usually readily overcome by pressing the convex edge of the blade up gently with the fingers already in the vagina, while the right hand holding the handle near its hooked extremity, brings this down with a spiral turn, thereby bringing the concave surface of the blade up over the side of the head. Of course in right occiput anterior positions, the eighth of some authors, the pivot blade which should still be introduced first, is pubic and is introduced in the same manner except, instead of being in front of the left sacro-iliac junction, it is now behind the left acetabulum, and the right hand or female blade is in front of the right sacro-iliac junction, and the blades when applied in the direction of the left oblique diameter of the mother's pelvis, with the pivot, when the blades are locked looking towards her right groin. When the forceps are thus applied obliquely, no effort is made to rotate the head, this is down by the inclined planes of the pelvis, as the head is pulled down, until the occiput falls under the pubic arch, when the pivot of the forceps looks directly towards the pubis. Now we have here a ready solution of the seemingly difficult problem of always applying the blades to the sides of the head, and yet never applying them antero-posteriorly. Never apply the blades to the sides of the pelvis before rotation has taken place—that is, while the head is in the transverse or oblique position, unless in case we cannot determine the position, or cannot apply them otherwise. In this rule, through ignorance or want of skill, we are thrown back upon the general rule of German obstetricians—that is, we acknowledge our ignorance or want of skill when we do the best the Germans can do: To apply the blades to the sides of the pelvis instead of the sides of the child's head—that is to apply them in relation to the mother's pelvis instead of the child's head is as bungling and unscientific a procedure as are most of the German forceps.

Always determine the position and apply the forceps by the fontanelles and sutures, and never feel for an ear; leave this for the Englishman or Scotchman.

Always apply the forceps in the absence of a pain, and make traction during a pain. Always make traction in the direction of the axis of the part through which the head is passing.

Always make traction and compression intermittingly.

Never use more force than is necessary.

Always regard the perineum, giving time for its distension.

Always use the forceps cautiously, tenderly; never blustering or appearing in a hurry. Never use undue force in introducing the blades or in bringing them to lock.

Never use the forceps unless it is necessary, and never fail to use it when it is necessary, or when, by trusting to the efforts of nature too long, mischief to child or mother would result.

Trommer Extract of Malt Co.

FREMONT, OHIO.

FREMONT, Ohio, April, 1878.

DEAR SIR:—

It is now five years since we first introduced and began the manufacture of Extract of Malt in the United States. It has been our aim to furnish the medical profession in America with a malt-extract equal to the best German make, and (by saving the expenses of importation), much cheaper than the foreign article can be afforded. For the manner in which our efforts have been appreciated by the medical profession, we desire to express our warmest thanks.

The difficulties attending the manufacture of Extract of Malt in large quantities, can be overcome only by that kind of skill which is acquired by experience. Its constituents must receive no injury by the process, and good flavor and keeping quality, adapting it to all climates, must characterize the product. All are familiar with the striking difference between certain celebrated brands of ale and porter—and yet the poorest as well as the best, is, or should be, produced from barley malt and hops. Success greatly depends, of course, upon the employment of none but the best material; but it is by the use of specific and long-tried procedures that results are obtained which are so difficult to rival.

We do ourselves but simple justice, in stating that our *entire attention* is, and for many years has been, *exclusively* devoted to the manufacture of Extract of Malt for medicinal purposes, and that we give our undivided personal attention to each step in the delicate process by which Extract of Malt of excellent quality can alone be made.

Under these circumstances, it is unreasonable to suppose that the various manufacturers of fluid extracts, elixirs, pills, etc., (who attracted by the high reputation of our Etract of Malt), have recently in various sections of the country, undertaken the manufacture of a similar article, should generally succeed in producing it of a quality according to the fulsome praise with which their advertisements are filled. While being perfectly willing to let the reputation of our Extract of Malt rest upon its real merits, we owe it to the medical profession, as well as to ourselves, to give warning against imposition.

It has come to our knowledge that certain articles extensively advertised as "pure" and "genuine extract of malt," are composed chiefly of the substance called GRAPE SUGAR or MALTINE, which, as is well-known, is the product of the action of sulphuric acid upon starch subjected to a high temperature. This artificial grape sugar or glucose, which is extensively manufactured from corn starch, is now being used in immense quantities, instead of ordinary cane sugar, in the sophistication of confectionery sugar house syrup, "strained honey" native wines, and canned fruits, and by some brewers in the manufacture of beer and ale. The cheapness of this artificial product of Indian corn, constitutes the chief inducement for this species of substitution for barley malt and sugar cane.

Again, an extract of malted grain is manufactured for the purpose of obtaining *diastase*, which, (simple and variously combined) is much used in medicine. The appearance of the extract is but slightly changed by being deprived of this important constituent, although, it is unnecessary to add, that its value as a medicinal agent is thereby greatly impaired. Nevertheless, this very substance, which is little more than refuse material, in the manufacture of diastase, is now being offered for pure malt extract.

It is *malt extract* prepared from barley malt combined with the proper proportion of hops, that has been for many years the standard medicinal nutritive employed by the medical faculty of Europe, and especially of Germany. Its value has been established by experience, and its use in the treatment of almost all forms of disease of nutrition is constantly extending. We shall continue to devote the most scrupulous attention to the maintenance of the reputation of our malt extract, by the careful selection of material and by unwearied personal attention to manufacturing details.

Attention is respectfully directed to the accompanying extract from Ziemssen, and also to our circular and testimonials elsewhere printed.

Very respectfully,
TROMMER EXTRACT OF MALT CO.

FROM ZIEMSSEN'S CYCLOPÆDIA OF THE PRACTICE OF MEDICINE, VOL. XVI, PAGE 474:

"The Malt Extract prepared from Trommer's receipt is designed to fulfill much the same purpose as cod-liver oil, carbo-hydrates (malt sugar, dextrine), taking the place of fatty matter. The simple (much or little hopped) and the chalybeate form of Malt Extract are coming more and more into favor as substitutes for the oil; they are more palatable and more easily digested, and should, therefore, be preferred in the dyspeptic forms of anæmia. During the last few years Malt Extract has almost entirely taken the place of cod liver oil in the treatment of phthisis, and other wasting diseases at the Basle Hospital, and we have as yet found no reason for returning to the use of the latter remedy. The Extract may be given from one to three times a day in doses varying from a teaspoonful to a tablespoonful in milk, broth, beer or wine."

Saccharated Chloro-Pepsine

The Best Remedy for Nausea and Vomiting in all forms,

ESPECIALLY OF PREGNANCY, INDIGESTION & DYSPEPSIA,

ALL FORMS OF GASTRIC DERANGEMENT, ATONIC DIARRHŒA, INDIGESTION—DIARRHŒA OF CHILDREN, Etc., Etc.

Vomiting in General is a reflex act due to an irritation either within the stomach—whether the irritant be introduced as such, or the irritation proceeds from over-distension of the organ or fermentation, decomposition of food—or without the stomach, the sympathetic variety.

Vomiting of Pregnancy is an example of the latter part.

A supply of *pure* pepsine, or any or all the gastro-intestinal digestive principles, fails to remedy the trouble. Why? Simply because this *functional derangement* of the GASTRIC SYMPATHETIC SET OF NERVES *requires that the remedial agent shall be especially addressed to this portion of the nervous system.*

Realizing this fact, I have prepared a compound **SACCHARATED CHLORO-PEPSINE,** in strict harmony with the pathological indications to be met, as may be attested by a perusal of the formula given below.

The Indigestions.—Indigestion, when due to deficiencies of gastric secretion, atony, or hyperæsthesia, always demands an artificial aid to digestion, in addition to regulation of diet. Pure saccharated pepsine has been used until lately; now, however, it is further reduced in strength by the partial substitution of pancreatine, the intended action of which is prevented, *since pancreatine itself*, as the physiology of digestion plainly teaches, *is decomposed by gastric digestion.* My compound not only supplies the necessary amount of pepsine, but also the *Cerium*, which, acting as a sedative tonic, overcomes the hyperæthesia of the gastric nervous supply, and hydro-chloric acid (the normal acid of the gastric juice) is generated within the stomach by the liberation of chlorine from the lime (oxychloride).

Further, the *Saccharated Chloro-Pepsine* has a very powerful and instantaneous influence in stimulating the secretion of saliva, which flows in abundance the moment the compound is placed upon the tongue. The importance of this in relation to the digestion (partial) of the starchy elements in cases of weak digestion of this class of aliment should not be overlooked.

I believe my preparation is *greatly superior* to all other compounds in the market, and to simple saccharated pepsine. Only a short time before the profession, IT HAS GAINED GREAT POPULARITY.

Testimonials received from very eminent members of the Profession attest its superiority.

FORMULA.

	gmm.
Pepsinæ Porci	**140.005.**
Cerii et Calcii Oxychloroxalat	**77.758**
Sacch. Lactis	**ad 373.241**
m **Sig., for Adults**	**10 to 15 grains a dose.**
for Children	**1 to 10 grains a dose, according to age.**

It is intended to restrict the sale of this preparation to physicians' prescriptions and orders, so that I shall rely on the profession to test its efficacy and and give it support.

PUT UP IN ONE OUNCE BOTTLES.....PRICE $1.00.

PAREPARED BY

BENJ. W. DYER, Manufacturing Chemist,

460 Fourth Avenue, corner 31st Street, New York City.

GENERAL AGENTS,

FRASER & LEE, Wholesale Druggists, 20 Beekman St,. N. Y. City.

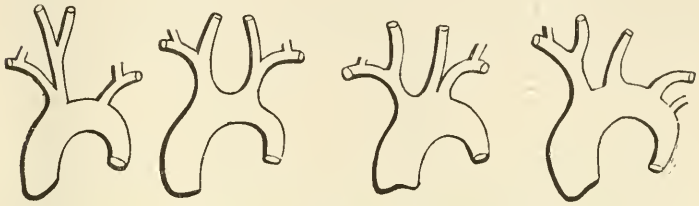
physician who allowed his own precious boy to burst the fine blood-vessels of the brain learning to conjugate Greek verbs. One test of that boy's temperature would have told the father that the child needed rest, but the temperature was taken too late. "The silver cords were loosed, the golden bowl broken." The physicians and the physiologists have done this much for humanity; they have discovered the economical basis of life, and here placed within the reach of every parent, every teacher, the positive signs of danger. Health depends upon a perfect equilibrium between nutrition and destruction. When this balance is disturbed, the disturbance manifests itself by some variation in pulse temperature or respiration. These outposts of nature are so accessible, that the most stupid can find them, and learn the signals of danger. The ingenuity of man does not leave a steam boiler unprotected that the engineer may know when the pressure is getting greater than the cohesive power of the metal, but what does the same man know of the cohesive power of his own flesh, or the governor which nature has placed within his own veins? 98° F. thus far shalt thou go and no farther; go beyond this at thy peril; what could be more definite? The family clock has long been exalted—far be it from us to drag it down from its old place on the wall—monitor of birth and death, and all the days between; but just as easy to understand, not so expensive, not so troublesome to keep in order, and of far more vital importance, is the family thermometer. It says to the mother, to the teacher, here is the standard of human life; it marks the moment that life's forces begin to waste. What is standard time compared to such a standard! The child's education then must begin at the beginning—the contractility of his muscles. At first the movements are automatic, aimless, in response to whatever stimulant is applied. The steps from these automatic motions to rational, willed activity, are slow and gradual, a methodical preparing of the way from the periphery to the center, a utilizing of the natural channels from without inward. It is the upper and inner part of the nervous system, taking possession of the lower and outer. That formidable disease, a lack of control and co-ordination of muscular contractility, known by the people as St. Vitus dance, yields to the physiological training of the muscles. Farini, the greatest muscle trainer in Europe, could do more for such diseases than Charcot or Brown-Sequard, the greatest healers of nerves in Europe. But we must bear in mind

that unscientific gymnastics are even worse than unscientific medicine. The system may eliminate a poisonous drug, but an overstrained muscle or nerve is slow to recover its tonicity. So, beware of the charlatan who advertizes to knead you and electrify you. We know how much strain a vegetable fiber can bear, and how long it takes to recover its contractility after it has been exhausted, but we do not know thus accurately the power of the muscular fiber; we can only approximate the standard.

To the mind of many there is an incompatibility between muscularity and mentality; nothing is further from the truth; without a good muscular development there is an everlasting antagonism between the vascular and the nervous supply. Muscular development maintains the equilibrium, and gives stability to the nervous system. If there is any difference in the mental power of man and woman, undeveloped muscles are responsible. We find that the muscles of the body have what is known as bilateral symmetry, similarly disposed on either side of the body. Bichat was the first to observe that all the organs of animal life, the brain, the cord, the senses, the organs of prehension and locomotion, all have this bilateral development. This is common to all the higher animals, and yet man is the only one of these animals that neglects the use of one-half of these perfectly symmetrical muscles. Let us see if the reason for this be one of structure or education, or both. The organ we are considering is muscle—its function is to contract. The control of that contraction lies largely in the cerebral cells; the integrity of the cells depends upon their nutrition or blood supply. The more immediate the connection of the cells with the heart the better their activity. The more remote the part the greater the deterioration in the quality and quantity of the blood. The nervous system demands not only a certain amount and quantity of nutrition, but a certain force or tension of that nutrition. Hence, as a rule, other things being equal, short-necked people are more cheerful and can do more consecutive work than long-necked people. It follows that the side of the brain that is in more immediate connection with the heart gets the best supply, consequently can do the best work. This brings us to consider the channels of the blood as it leaves the heart. In order to make this part of the subject clearer we have made drawings after Armand de Fleury, of some of the various types of branching of the aorta. We wish to call attention to the fact, that the type of cerebral

circulation defines the type of the disposition. When the cephalic or brain arteries are symmetrical branches of one single trunk given off from the aorta, we get swift, harmonious motion, with scarcely any of the fighting disposition as in the horse. The porpoise and the mole, instead of a single ascending trunk from the arch of the aorta, have two, but the branching of these

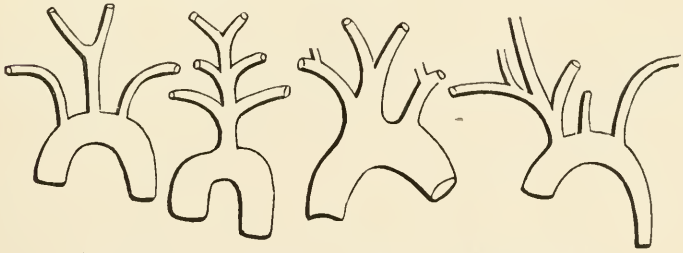
Fig. 1. Fig. 2. Fig. 3. Fig. 4.



1. Gibbon. 2. Hedgehog and Mole. 3. Man. 4. Ourang.

two is likewise symmetrical, so that there are equal-sided, harmonious movements. But when we come to the lion, the bear and the dog, and with a shade of difference, the wild boar, we find two ascending branches from the aorta, a right and left, the right having three divisions, two going to the brain, the other to the right arm, while the other arm or fore-limb is supplied by the small left branch of the arch. Here we get a very uneven distribution of

Fig. 5. Fig. 6. Fig. 7. Fig. 8.

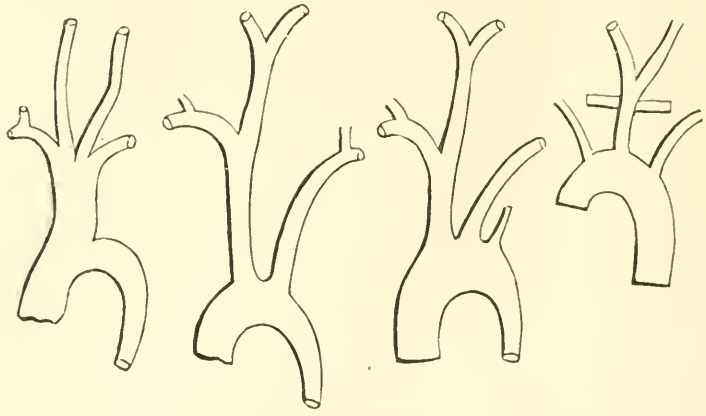


5. Elephant. 6. Horse. 7. Lion. 8. Cats and Dogs.

blood to the two sides of the animal, and so do we get bounding motion and ferocity of disposition. In the cat and some dogs there are three branches from the arch, the central and the left being small while the right is very large, with four branches, the irregularity giving quick temper and quick motion. When there are three upward branches of the aorta, if the middle one

is evenly divided into two cephalic, we get the harmonious motion and single organ of prehension as in the elephant. What turns the tamable elephant into the untamable rhinoceros seems to be a horizontal branching of the middle cephalic trunk. In man also the aorta has three upward branches, but the two carotids do not rise precisely alike. The right carotid, like the right subclavian, is a branch, not of the aorta, but a short trunk called the innominata, while the left carotid and subclavian arise directly from the aorta itself, the innominata on the right, the carotid

Fig. 9. Fig. 10. Fig. 11. Fig. 12.



9. Ox. 10. Llama. 11. Giraffe. 12. Rhinoceros.

and subclavian on the left, making three aortic branches. The human type is thus a cross between the symmetry of the horse and the symmetry of the lion and tiger, and we find in man just what we should expect, a mixture of evenness and peacefulness with nervousness and snarling, to call it by no harsher name. Now, if to this structural inequality we add one-sided education, it is no wonder we get one-sidedness of character. It is no wonder we have so many hemorrhages and tumors of the left side of the brain, and so many paralyses of the right side of the body. The physiologists having discovered and interpreted this untoward fact of non-symmetrical blood supply, have followed it up with the consoling fact that the vascular system is exceedingly modifiable, and that if a demand be created by exercising the other side of the body the supply will be forthcoming. That the one-sided action comes more from education than structure is

proved by the fact that the beaver and chimpanzee, with precisely the same channeling of the blood, are ambidextrous. They seem to experience no difficulty in controling the muscles of both sides equally. They have never heard of the awkwardness or disgrace of being left-handed, and have never been to school. If nature has ordained that the left hand should be an idler, what a mistake the violinists are making; almost as great as women are making in learning to think. The farther we investigate the better we shall learn that the mistake is not made by nature, but by the mothers and nurses, and that nature, like the Bible, is often obscured by the big shadow of somebody's little idea. Even the tendency of the young child to lie on the right side is less natural than artificial.

Charles Reade, who has taken pains to thoroughly investigate this subject, says the greatest authorities, from Farini on muscle to Brown-Sequard on brain, are unanimous in opinion that both sides of the body should be equally trained. Think of the immense gain in all kinds of manual work if the left hand could relieve the right. This is a physiological cure for, or rather a prevention of, writers', seamstresses' and telegraphers' "cramp," while the effect upon society, of an even instead of a lop-sided brain, can be scarcely be conjectured. The left carotid has been making human history long enough; we should like the right carotid to have a chance. Decidedly one-sided have been the world's doings, yet, who ever thought of finding a remedy in physiology? If education has thus taken from the race fully half its power, what may it not give back to the race? We thus see that of all the animals of his class, man is the most helpless, both mentally and physically, when life begins. Indeed, an intelligent infant is a monstrosity, and insanity or dullness is the usual condition of his adult life. It is proverbial that many intellectual giants have been everything but "smart" children. But if we could analyze the methods we should find the physiological paths to such brains all open with elements of ideas. The intellects that prove strong and stable through all the years never begin with ideas. So great an authority as Dr. E. Seguin, of New York, affirms that "the cause of almost all insanities is the discordance, nay antagonism, raised by education, scholastic, religious and social, between the cephalic and the central parts of the nervous circuit. This is supported by the evidence that in true savage life, where the whole nervous system is evenly left

alone to the drifts of instinct, insanity is unknown, but where the strain on the mind is excessive and the sympathetic wants are ignored or subdued, insanity is rife." The education of the so-called mind then is reflex, not direct; the only direct training the children can receive is of the senses themselves. If approached in the natural method the brain accomplishes a peaceful mastery, otherwise there is constant strife throughout the realm. The vascular and nervous supplies are continually at war. Again, in our great eagerness to educate the intellect, we have ignored the child's morals as well as his muscles.

Men are not hanged, thrown into prison, or upon beds of sickness because they cannot demonstrate a theorem or write a treatise. There is no such penalty attached to the violation of a law of orthography or logic as to the violation of a law of health or morals. Schools there are a plenty that teach dead languages, but none that teach living justice. There are schools even that teach how to die, but we know of none that teach how to live. Medical schools do not—only the fittest could possibly survive the vile hygiene of a medical college. We hope and believe that the moral atmosphere is purer than the physical. The disastrous experiences of the American people within the last twenty years has proved to us that our popular education is a dangerous power. It is educating the people to despise labor, and there is nothing in it to make men honest, truthful and just. Man is the only animal of his class that starves to death in the midst of plenty. He may be able to calculate eclipses and speak in divers tongues, and yet die for want of sense. The power we speak of is well christened "common sense"—a taking in of the things necessary to life through the open doors provided by nature. Trained intellects, or the intellects that are worth training, are few and far between; but trained senses and morals might, and should be, the common heritage of all. This is all that ordinary human life demands. And if an individual is freighted with more than he can find use for, all the worse for the individual; he is incapacitated. This is largely the kind of work the public schools are doing—incapacitating the masses, by working at the intellect exclusively; not teaching them how to use what they get, and not stopping when they have gotten all they can use. If we wanted to improve upon a polyp even, we should begin by training his tentacles, but the masses of people are worse off than the untrained polyp; their tentacles are para-

lyzed by a sort of intellectual curare known as "getting an education." The young man or woman who has a good moral character, and knows how to do some useful thing well, is well prepared for life. Again, our greatest scientists have expressed the opinion that the Bible should have a place in the schools because it is the best book of morals in the world. We are glad to see that a woman is trying to establish a department of morals in the schools of our land. Matilda Fletcher and Gen. Burnside have begun a good work in a good place—teaching morals in the District of Columbia.

The most that the physiologists are able to do is to bring these scientific truths to the teachers, who must invent their own methods. Many steps have already been taken in this direction. The kindergarten, in its original conception, is right in its method, but the kindergarten, as practiced, for the most part simply makes a transfer from books to objects, the aim being the same, viz: crowding the child's mind with knowledge instead of developing its functions. The essence of the error is just the same, whether it be made with blocks or books. Knowledge may come; it surely will come; but it never should be made the aim of education. Education means the utmost of every organ, every function. Its work is to prepare the way and make straight the paths, viz.: the five senses. The peripheral nerves, including the nerves of special sense, may be likened to so many absorbents, waiting with eager, open mouths for things fit to receive, which, when received, are transformed into mental or muscular results, as food is transformed into tissue, the transforming power in either case being something above and beyond the tissues themselves. The introduction of the world to the mind presupposes a certain receptivity—first, of the ganglionic cells near the surfaces, and last of the brain cells themselves, and it would seem, were this receptivity of the brain cells entirely wanting, any attempt at education would be hopeless; but the schools for the feeble-minded and idiots prove that the embryonic tissue cell of the idiot brain can by use be transformed into the real nerve cell. If they have subserved no other purpose, these schools show the almost infinite possibility of the natural method of education, the sending of something into the brain for it to take hold of and act upon. Given one single pathway to the mind, let all the others be irrevocably closed, still the world may enter and become transformed into ideas. And when the true and kindly earth is thus led in, a truer, kinder heaven will come out of humanity. We leave it with you to answer whether it was the brain or the eyes of Robert Burns that made him differ so much from the other ploughboys.

YELLOW FEVER. ITS ORIGIN, NATURE, SYMPTOMS, PATHOLOGY, TREATMENT AND PREVENTION. By J. W. COMPTON, M. D., of Evansville, Indiana.

If all the inhabitants of the civilized world were permitted to choose their own mode of yielding up the breath of life, I am convinced that few would elect to die of yellow fever. The terror it inspires is unparalleled. Its history is one of desolation and death. It can only be written in sadness and gloom.

It is a history of an unequal and deadly struggle with an unseen enemy; a fearful pestilence, "which walketh in darkness and destroyeth at noonday." Its advent is the signal for the most profound and widespread alarm; it paralyzes the industries of every kind; trade and commerce, through large sections of country, are suspended; public revenues and private incomes shrink to almost nothing; travel is impeded; hospitality shrinks appalled in its presence, and grass grows on streets once kept smooth by the tramp of busy feet. In approaching the consideration of this disease a feeling of sadness pervades every thought, a sense of awe is awakened similar to that which is felt by the student of anatomy when for the first time he places his hand upon the cold, death-dampened surface of the dead subject he is to dissect. Its consideration brings up fresh to our minds the dreadful ordeal through which so many of our fellow-beings passed, to whom the boon of life was as dear as to ourselves, without the kindly sustaining influences of hope, to face almost certain death, and in the mournful stillness of a town, deserted by all who could fly from the dangers, struggle alone, and at last, in despair, be compelled to yield up life itself to the irresistible destroyer. It is a subject that the physician trained to sympathize with suffering humanity will find ample scope for the exercise of all his sympathy; and to his honor let it be proclaimed that he has never proved recreant to the responsible trust imposed upon him as a member of our honorable profession. Whenever pestilence has smitten the people, brave men in the medical profession have always been found ready to volunteer their time and talents, and at the risk of their own lives place themselves in the

thickest of the appalling conflict for life and death, waged between a relentless pestilence and suffering humanity. Since the outbreak of the late pestilence no less than one hundred physicians have sacrificed their lives on the altar of professional duty.

The *Medical Record* thus fittingly alludes to this sorrowful subject: "To the medical practitioner there is an interest in the occurrences which is hidden from the ordinary eye, and which proves an intensy of devotion to professional duty scarcely appreciated by the public at large. The people expect personal sacrifices because they are the rule with the profession, forgetting, perhaps, that the life of the doctor is as precious to himself and family as though he were another person. The real fact, however, is that during a pestilence, and always knowing the danger, the physician never hesitates to hazard life in the performance of professional work, and falling with those around him, he elevates his action to that sublimity of heroism which can only belong to a willing martyrdom for helpless suffering. When the cry for help went over the land, the merchant and banker pitied the sufferers, and with a generosity worthy of the cause emptied their coffers into the common charity; the Howards came to the rescue, and with their valiant band of helpers distributed their good officers everywhere; and lastly the humble doctor offered his services to stem the tide of devastation and death. Death is in the line of his duty, and the greater the force of the pestilence the more stubborn must be the fight. But the struggle is so unostentatious that no one hardly knows it is going on.

He takes his stand at the lone cot of the pauper, under cover of the night, in the silent chamber of the dying, with his life in one hand and help in the other, with pestilence stalking everywhere, and yet there is something within him which always nerves him to fight persistently, silently and patiently to the end. I could not do less, Mr. President, than to give some of the outlines of the frightful features of the fearful fever that claims our attention, as well as to offer a slight tribute to the memory of those brave heroes in the medical profession who, with sublime courage and more than Spartan bravery, marched into the deadliest conflict and manfully applied their skill to the stay or alleviation of the terrible disease that was spreading desolation and sorrow in so many fair homes; and whether they survived the fearful ordeal or fell as brave martyrs in the line of duty, their

deeds of heroism will serve to illuminate the brightest pages of professional history and exemplify the inherent grandeur of our noble calling."

ORIGIN.—In regard to the origin of yellow fever it appears safe to adopt the following practical conclusions, that the disease originates spontaneously in most if not all the West India islands; or leaving out the question of spontaneous generation, that certain disease germs, the nature of which is not fully settled, but the introduction of which into the human organism is necessary to the production of yellow fever; that having found a habitation in those countries, the mildness of the climate is such that they are never all destroyed, but may live indefinitely or perpetually in their favorite and congenial lurking places.

"That such germs if not exposed to a temperature below 32° Fahrenheit, or to the chemical action of certain agents, may retain their morbific potency any unknown period in the holds of vessels, in storehouses, clothing, bedding, or in masses of decomposing animal or vegetable matter, and that such potency may be rendered active under favorable conditions, to-wit: Atmospheric exposure, moisture and a temperature of 70° or 80° Fahrenheit. That while it is not known that these germs ever originated in United States territory, we are separated only a few hours sail from many of the islands where it is indigenous. It is known that they have survived the winter climate as high as latitude 30° north, under conditions above recited, and have thus originated the disease exclusive of direct importation."—Reilly.

NATURE.—That there is a cause exterior to the human organism and operating thereon to produce yellow fever, is apparently well established by the epidemic character of the disease. "The fact that great numbers of healthy people, in a community living under seemingly the usual conditions that surround them in health, are suddenly and simultaneously stricken with sickness; the marked localization of the disease, and the fact that a freezing temperature arrests an epidemic of it, suggests to a reflecting mind the possibility of destroying *in loco* its poisonous cause, be it organized or inorganic, animal, or vegetable, solid, fluid or gaseous. That it is not gaseous seems clear from the well founded facts of its portability in clothing, trunks, vessels, etc., and its capacity for being retained for long periods in places by no

means excluded from the surrounding healthy atmosphere, which by the law of the diffusion of gases, would soon displace it. If it be fluid it evaporates if volatile, and could not be transported and retained attached to surfaces in contact with the air for months, and even years, as experience indicates it is; and if non-volatile it would remain attached to the surfaces, and would not contaminate the surrounding atmosphere, as it appears to do when the surfaces are freely exposed under proper conditions. It then seems that it must be solid or have a solid for a basis; and, if solid, it is either organized, living, or it is a chemical substance composed of one or more of the elementary matters, and without life or power of propagation. But all experience shows that from a small beginning, under favorable circumstances of temperature, moisture, etc., it rapidly spreads over large cities, will apparently be as concentrated and potent in places distant from, as those near the original source; and this could not be with a material unendowed with vitality or the power of self-propagation. Thus by a process of exclusion, we are brought almost irresistibly to conclude that the poison is solid, or semi-solid, endowed with life. It may be exceeding small, so minute as to be invisible with the most powerful aids of vision we possess; or it may be comparatively of considerable dimensions, and yet so transparent as to elude our research; or it may both be exceedingly small and transparent, or it may be neither so small nor so transparent as to be invisible with our microscopes; it may not have been sought for in the proper manner.

If it be a germ, either vegetable or animal, it seems to be low-lying, propagating from centers along surfaces, equally in all directions, against the wind as freely as with the air currents."—Vansant, 1875.

"Although the morbific elements in yellow fever have not as yet been determined by our outward senses, observation points to the belief that it exists in living germs, propagated without the body, but which can be studied only by their effects on the human organism.

Testimony has been for years accumulating to the conclusion that the disease may be arrested and extinguished in infected localities by the use of agents destructive to low forms of life. The following are valuable, and probably represent the very latest theories regarding the action and propagation, under certain favoring conditions, of this most formidable disease.

1st. That the poison is not of a gaseous nature, but attaches itself to the soil, to walls and to exposed surfaces generally.

2nd. That the disease propagates from centers, along surfaces, equally in all directions, as often against air currents as with them.

3rd. That the poison exists in the patient some time before development.

4th. That the germs, whether animal or vegetable, must have existed in more or less force for an indefinite period preceding the moment at which the development of the disease takes place. It has also been ascertained that yellow fever advances from local *foci* at a rate of about forty feet per day."—Smith, 1876.

"I am convinced from the testimony of writers and from my own experience that *contagium virium* producing yellow fever, when left undisturbed, can be carried in ships or any other closed vessels, to any distance over land or water. That persons entering such closed vessels and inhaling the poisoned atmosphere, may develop the disease; or that this poisoned air being liberated by ventilation will spread and reproduce the yellow fever germs, provided it finds the atmosphere and cosmic conditions necessary to its growth."—Le Hardy, 1876.

"The mode by which the various infections extend, fully supports the doctrine that they depend upon a living principle, not a dead miasm, or a peculiar atmospheric condition. Another evidence that the various contagia possess life, is the fact that they always reproduce and multiply strictly after their kind."—Tyndall.

Many examples of the manner of communicating yellow fever from one person to another will be developed when the history of the epidemic of 1878 is fully collected and written. I will only present two or three. The John D. Porter, running from New Orleans to Cincinnati, landed at the wharf at Hickman, Ky., and remained less than two hours. Two apple boys went on board. In two or three days they were attacked with yellow fever and died with black vomit. Two men who lived adjoining the Millett family attended to the boys while living, and buried them when dead. The two men took yellow fever and died; then the Millett's took the disease and died; and the fever spread from these points, until it embraced in its ravages every part of the town and became a most malignant and destructive epidemic. A woman went from Memphis to Chattanooga, took the fever and

died; another woman washed her clothes in another part of the city, where there was no perceptible cause of malaria, was attacked with the fever and died. These two places became the *foci* from which the disease spread over the city. The Steamer John D. Porter landed in the vicinity of Gallipolis, Ohio, on the 18th day of August, 1878, and from the best sources of information, fully sixty persons died of yellow fever, in the vicinity of the point where the steamer lay at anchor in the river, besides those who died on the boat. All these cases may be traced to persons who had direct contact with the boat, or from *fomites* lawfully carried from the boat, or stolen and carried to the shore and to various places in the country, near by or into the city. It would be proper to state that many innocent persons became the victims of this malady by dishonest persons carrying infected articles into their houses or on their premises.

I would also state in this connection, that the altitude of Gallipolis is six hundred feet above the sea level, and the spreading of the disease at this point completely obliterates the imaginary lines that have been drawn, beyond which it is claimed that yellow fever cannot prevail. The Porter lay at the bank near Caseyville, the fifth, sixth, seventh and eighth of August, where two hands died of yellow fever and were buried. On the 24th, sixteen days after the Porter left, three children in a family three-quarters of a mile from where the Porter lay, were attacked with what the doctor called bilious remittent fever; on Aug. 27th, another; on Sept. 1st, five members of the family were attacked; a neighbor, named Hayne, was attacked with all the graver symptoms of yellow fever and died on Sept. 5th; another person who visited this family and remained two days, died after four days of malignant yellow fever, making four deaths, all having the worst features of yellow fever.

It is claimed that the Porter left the disease at Vicksburg and Memphis. The newspapers and medical journals have given the result.

The sad but thrilling history of that ill-fated steamer, John Porter, in her pestilential voyage from New Orleans to Gallipolis, Ohio, is one of distressing fatality on board and perhaps the scattering all along her route the germs of the terrible plague, which invaded the towns, planted the black flag, multiplied at various points and thus spread desolation and death over a large portion of our fair country. This account is condensed from an

abstract from an official document by Health Officer F. C. Minor, M. D., of Cincinnati, Ohio. A complete knowledge of this ghastly voyage would appear to be quite sufficient to finally settle any discussion that may exist as to the portability and the contagious or infectious character of yellow fever. I have endeavored to embrace in this abbreviated sketch, only matter relative to the bearing its recital may have in the interest of medical science. This would appear appropriate more especially as it exhibits a fact in spite of all preconceived opinions on this subject, that the farther north the boat traveled and the greater altitude above the sea level she attained, the more malignant and destructive to life was the deadly cargo of diseased germs she carried. The John Porter left New Orleans for Pittsburg July 18th, 1878, six days after yellow fever had declared itself in the former city. She had a tow of eighteen barges, some of which had been lying for months in the immediate neighborhood of the point where the outbreak occurred in the city. They contained foul bilge water and decomposing vegetable matter. The crew consisted of thirty-five men. One Murphy was indisposed when he boarded the boat, and when one day out developed yellow fever. (We must here adopt one of two conclusions, that the subsequent ravages of yellow fever and the numerous cases on the boat had their origin in the poison carried in the boat or barges or was brought on board by this man.) Before reaching Vicksburg McCullen and O'Brien were also attacked. McCullen and Murphy were placed in the hospital where Murphy died. The boat continued on her way up the river about the the 25th. When sixty miles above Vicksburg, O'Brien died of black vomit. At Arkansas city three men were attacked with fever. Before reaching Cairo were convalescent and were discharged. Before reaching Evansville fever again broke out, seven persons were attacked and Wilson died at Caseyville, Ky. At Louisville the crew became so alarmed that many left the boat, some went into the Hospital and their places were supplied with fresh hands, who had not been exposed at any infected port. When the Porter left Louisville for Cincinnati one engineer, Degelman, was sick with the fever. On the 14th of August Dr. Minor boarded the boat at Rising Sun, fifty miles below Cincinnati. The crew was so much demoralized by fear that the Captain was afraid to land at Cincinnati for fear his men would desert him. Several were complaining and presented a

careworn and haggard expression. Dr. Carr was ordered on board at Lawrenceburg and discovered two more cases of fever. The boat continued on her way up the river. Dr. Slough was ordered on board at Cincinnati and the two physicians bravely stood at their posts while death was dealing its blows around them on every hand.

On the 15th of August, there were seventeen people in the cabin, with deck hands and firemen, making thirty-nine persons in all. At this date Koehler was attacked with fever.

AUGUST 16th.—Another man sick; at night Capt. Beckerstof attacked; the quarantine now depresses the men, making them very despondent.

AUGUST 18th.—Four new cases and the old ones rapidly growing worse; could not pass the wreck of the Brilliant; and had to drop back; this had a bad effect on Degelman, he sank rapidly and died; men demoralized and refuse to work.

AUGUST 19th.—Koehler died; dropped below Gallipolis.

AUGUST 20th.—Briceland died; the new cases to-day make a total of fourteen down with the fever.

AUGUST 21st.—Farrell died, and no help can be obtained to bury him; he is greatly decomposed and the stench is unbearable, grate bars are tied to the coffin and the corpse thrown overboard.

AUGUST 22d.—Dr. Carr here attempted to describe the situation of the deserted, shunned, and disease-laden steamer: "Sullivan has just died; the silent and deserted condition of the steamer is oppressive; it is terrible beyond expression on O'Neal; he is sinking rapidly at 3 A. M.; now, for the first time, he gives up and thinks he is going to die; 6 A. M., the sun presents a glorious appearance, dispelling the gloom of the last fearful night; O'Neal seems to have summoned up some of his vitality, but his upper and lower extremities are icy cold; he walks around a few minutes, then lays down and is dead by 6:30 A. M.; they have made some arrangements to help bury these two; the coffins are sent; Armstrong and myself put the bodies in; two colored men are sent on board to help us carry them out and bury them. The mate and myself are the only ones left; he is well and is to remain on the bank and not go on board unless in case of absolute necessity; I start for home at 4 P. M."

This history shows that the longer the men remained on the boat the more malignant the fever became, notwithstanding the

had reached the altitude of Gallipolis, two hundred miles above Cincinnati. The conclusion we are compelled to arrive at is, that if a wreck had not prevented and the Porter had been permitted to land her cargo of infection at the wharf of the populous city of Pittsburg, the sanitary condition of which is rarely above suspicion, the fever would have spread and a fearful pestilence been the result. Dr. E. O. Brown in a report to the Board of Health of Louisville, Ky., says that every indigenous case of yellow fever, and there were fifty or more originated in what was called the infected district, a territory comprised of only one square, and of which number twenty-eight died, if he is correctly informed. That four of them died in the yellow fever hospital and that these were among the most malignant cases of yellow fever treated in the hospital, as shown by all the tests known before and after death. In all these four cases he found in the blood and breath large numbers of active vibrios or living germs. That he can safely say, if these were not cases of yellow fever, they admitted none in their hospitals from the South. That the disease did not originate in that particular locality from any local cause, as the streets and alleys in that portion of the city were in a much better sanitary condition at the outbreak than were a hundred other localities; and from the appearance of the first case extra labor was given in cleansing up and disinfecting the whole neighborhood until after the disappearance of the disease. He further says that it is his firm conviction that if the disease had made its appearance two or three weeks earlier in the season, they would have had a hundred cases where they had ten; for during the last two or three warm days there were more cases and deaths reported than at any other period after the disease made its appearance.

SYMPTOMS.—The pathogonomonic symptoms of yellow fever are extreme elevation of temperature without a corresponding frequency of the pulse, red and injected watery and glassy appearing eyes, sluggish capillary circulation, albuminous urine, suppression of urine, hemorrhages, black vomit, and the deep yellow or mahogany color of the skin. The ordinary symptoms are chill or sensation of chilliness, rapidly rising fever, of intense grade, inward heat, pain and tenderness on pressure over the epigastrium, irritable stomach, intense thirst, and the rapid course of the disease. The symptoms are not all manifest in

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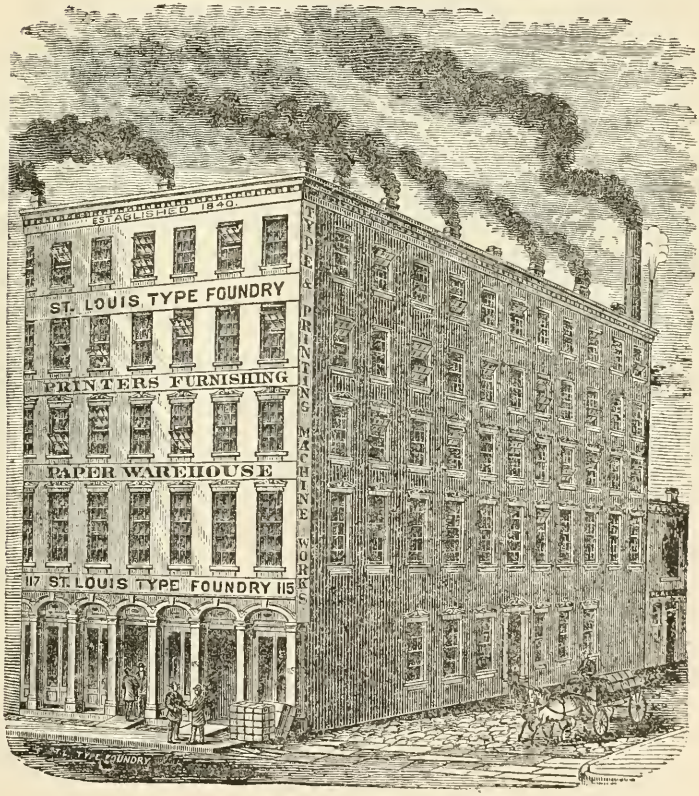

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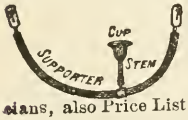

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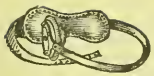

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